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OF

The School of
Landscape Architecture

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Builders' Directory and Guide

LAWS AND ORDINANCES AFFECTING
THE CONSTRUCTION OF BUILDINGS
IN THE CITY OF ROCHESTER

1908

ROOF

49 WEST A

Warren Chemical and Ma

Established 1855

W. STUART SMITH, Dis
ROCHESTER, N.

Warren's Anchor Brand Na
Gravel Roofin
Warren-Ehret's Slag
Brick and Tile Ro
Paving Pitch for Stree
Asphalt Mastic Fl
"Economite" Asphalt Ti
Asphalt Sand Surfaced Rea
Asphalt and Coal Tar Read
Watertight Cellars Bitumi
Waterproofing

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Creosote Shingle Stains, Sheathing and
Anti-Pyre Brick Preservat
Waterproof Cement Stain

Estimates Cheerfully Furnished for All
Repair Work

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City Engineer.

City of Rochester,

Department of Engineering.

Edwin A. Fisher,
City Engineer.

Rochester, N.Y., November 10th, 1909

Mr. Alfred C. Potter,
Ass't Librarian, Harvard College Library,
Cambridge, Mass.

Dear Sir:-

I beg to acknowledge the receipt of your circular letter of the 4th inst., and in compliance therewith I am sending you, under separate cover, a copy of our Builders' Directory and Guide, which contains the laws and ordinances affecting the construction of buildings in this city; and I am

Very truly yours,

E. A. Fisher
City Engineer.

P:

Builders' Directory and Guide

Laws and Ordinances Affecting the Construction of Buildings in the City of Rochester

COMPILED BY

B. B. CUNNINGHAM

Ass't Corporation Counsel

1908

DEPARTMENT OF ARCHITECTURE,
HARVARD UNIVERSITY.

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City Engineer

525

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We can furnish the material for moderate priced dwellings at a less price than you would have to pay at any other place in the city. We furnish everything:

Rough Hemlock for Framing
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Red Cedar Shingles
White Pine, White Wood or N. C. Pine Siding
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First Quality Doors to Match
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Our North Carolina Pine Interior Trim is superior to, costs less and makes a better looking job than Chestnut, and the fact that we are furnishing more Windows, Doors and Trim than any factory in the city, and doing the same a great deal more promptly, must certainly indicate that we are giving our customers very good satisfaction.

We invite you to look over the goods we carry.

Yours truly,

Genesee Lumber Company

45 WAREHOUSE ST. ROCHESTER, N. Y.

Either Telephone No. 238

Bureau of Buildings and Combustibles

Under the City Charter the Mayor appoints the Commissioner of Public Safety and has general authority over all Departments and Bureaus.

HIRAM H. EDGERTON
Mayor

CHARLES S. OWEN
Commissioner of Public Safety

JOHN A. P. WALTER
Fire Marshal

HERBERT W. PIERCE
Assistant Fire Marshal

JAMES H. SEVERANCE
Clerk

Office: 41 City Hall Hours; 9 A. M. to 5 P. M.

Organized 1850

MONROE COUNTY SAVINGS BANK

33-35 STATE STREET

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Resources, Jan. 1, 1908, -	**$19,106,402.54**
Surplus, Jan. 1, 1908, - -	**$1,146,366.70**

4% Interest Allowed on Deposits from One Dollar Up to Three Thousand Dollars.

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WILLIAM B. LEE,
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WILLIAM CRAWFORD BARRY,
Ellwanger & Barry.

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A Word to the Builder

Every house you construct should be piped for gas. The Kitchen Plan should show a Gas Range and Gas Water Heater. These should be conveniently located with reference to the table and sink. The Library Plan---should show a Gas Grate. Just the thing for chilly evenings, when it is not cold enough for furnace heat.

Provide now for these devices. It will save ceilings and walls later on.

ABOUT WIRING

Every house valued at $3,000 or more, should be wired for electricity. This work can be done much cheaper while the building is being constructed.

COMMERCIAL DEPARTMENT

Rochester Railway & Light Co.

34-40 CLINTON AVE. N.

PROVISIONS OF LAW

IN REGARD TO BUILDINGS

Labor Law (L. 1897, ch 415)

---

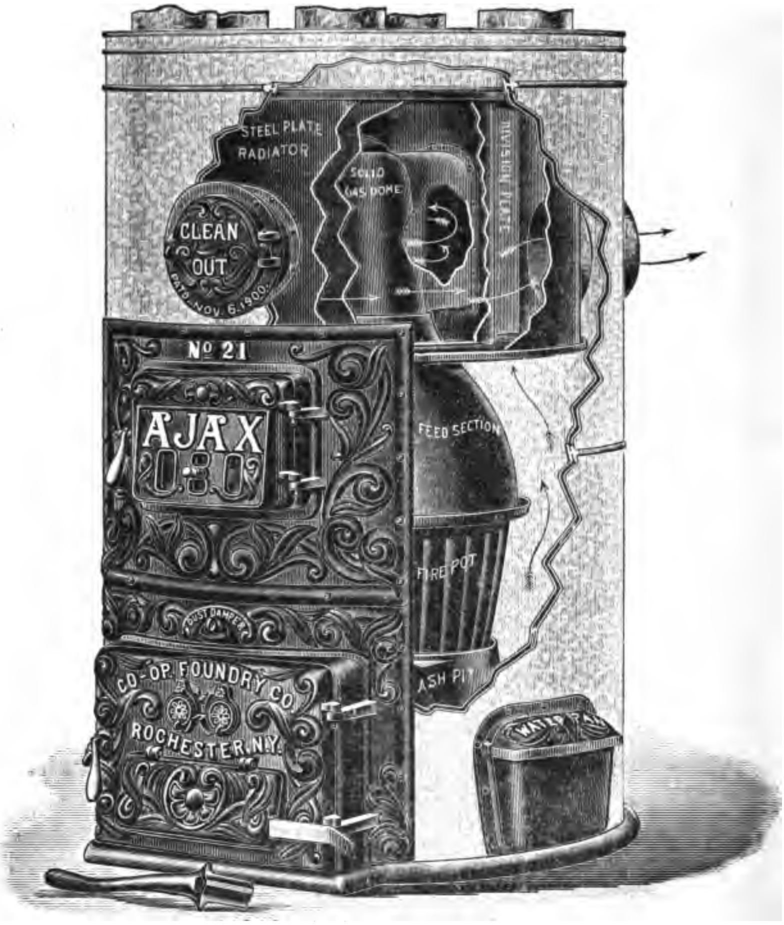
§ 18. *Scaffolding for use of employes*—A person employing or directing another to perform labor of any kind in the erection, repairing, altering or painting of a house, building or structure shall not furnish or erect, or cause to be furnished or erected for the performance of such labor, scaffolding, hoists, stays, ladders or other mechanical contrivances which are unsafe, unsuitable or improper, and which are not so constructed, placed and operated as to give proper protection to the life and limb of a person so employed or engaged.

Scaffolding or staging swung or suspended from an overhead support, more than twenty feet from the ground or floor, shall have a safety rail of wood, properly bolted, secured and braced, rising at least thirty-four inches above the floor or main portions of such scaffolding or staging and extending along the entire length of the outside and the ends thereof, and properly attached thereto, and such scaffolding or staging sahll be so fastened as to prevent the same from swaying from the building or structure.

§ 19. *Inspection of scaffolding, ropes, blocks, pulleys and tackles in cities*—Whenever complaint is made to the factory inspector that the scaffolding or the slings, hangers, blocks, pulleys, stays, braces, ladders, irons, or ropes of any swinging or stationary scaffolding used in the construction, alteration, repairing, painting, cleaning or painting of buildings within the limits of a city are unsafe or liable to prove dangerous to the life or limb of any person, such factory inspector shall immediately cause an inspection to be made of such scaffolding, or the slings, hangers, blocks, pulleys, stays, braces, ladders, irons or other parts connected therewith. If, after examination, such scaffolding or any of such parts is found to be dangerous to life or limb, the factory inspector shall prohibit the use thereof, and require the same to be altered and reconstructed so as to avoid such danger. The factory inspector or deputy factory inspector making the examination shall attach a certificate to the scaffolding, or the slings, hangers, irons, ropes, or other parts thereof, examined by him, stating that he has made such examination, and that he has found it safe or unsafe, as the case may be. If he declares it unsafe, he shall at once, in writing, notify the person responsible for its erection of the fact, and warn him against the use thereof. Such notice may be served personally upon the person responsible for its erection, or by conspicuously affixing it to the scaffolding, or the part thereof declared to be unsafe. After such notice has been so served or affixed, the person responsible therefor shall immediately remove such scaffolding or part thereof and alter or strengthen it in such manner as to render it safe, in the discretion of the officer who has examined it, or of his superiors. The factory inspector and any of his deputies whose duty it is to examine or test any scaffolding

Rochester Roofing & Heating Co.

G. E. BARKER, Manager = 35 AMBROSE STREET



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AJAX AND BERMUDA

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Metal Ceilings Sheet Metal Work Furnace Repairing

Roofing and Repairing. Tin, Felt, Slag, Gravel and Slate Roofing

Tin, Copper, Sheet, Galvanized and Ornamental Iron Work and Blow Pipes

officer contrary to the provisions of article one of the labor law, is guilty of a misdemeanor. (As amended by L. 1897, ch. 416.)

§ 447b. *Neglect to provide fire escapes, etc.*

A person who:

1. Being the owner, lessee, proprietor or manager of a hotel, fails to comply with the law relative to providing or keeping appliances to be used as fire escapes; or,

2. Being the chief engineer or officer performing the duties of such in any city or village neglects to make or cause to be made the inspection required by law to be made touching fire escapes in hotels, is guilty of a misdemeanor. (As amended by L. 1896, ch. 551.)

§ 447c. *Neglect to complete or plank floors of buildings constructed in cities*—A person, constructing a building in a city, as owner or contractor, who violates the provisions of article one of the labor law, relating to the completing or laying of floors, or the planking of such floors or tiers of beams as the work of construction progresses, is guilty of a misdemeanor, and upon conviction therefor shall be punishable by a fine for each offense of not less than twenty-five nor more than two hundred dollars. (L. 1897, ch. 416.)

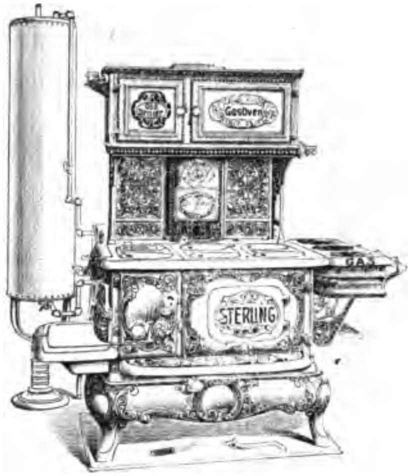
Provisions taken from Lien Law:

§ 3. *Mechanics' lien on real property*—A contractor, sub-contractor, laborer or material man, who performs labor or furnishes materials for the improvement of real property with the consent or at the request of the owner thereof, or of his agent, contractor or sub-contractor, shall have a lien for the principal and interest of the value, or the agreed price, of such labor or materials upon the real property improved or to be improved and upon such improvement, from the time of filing a notice of such lien as prescribed in this article.

§ 4. *Extent of lien*—Such lien shall extend to the owner's right, title or interest in the real property and improvements, existing at the time of filing the notice of lien. If an owner assigns his interest in such real property by a general assignment for the benefit of creditors, within thirty days prior to such filing, the lien shall extend to the interest thus assigned. If any part of the real property subjected to such lien be removed by the owner or by any other person, at any time before the discharge thereof, such removal shall not affect the rights of the lienor, either in respect to the remaining real property, or the part so removed. If labor is performed for, or materials furnished to, a contractor or subcontactor for an improvement, the lien shall not be for a sum greater than the sum earned and unpaid on the contract at the time of filing the notice of lien, and any sum subsequently earned thereon. In no case shall the owner be liable to pay by reason of all liens created pursuant to this article a sum greater than the value or agreed price of the labor and materials remaining unpaid, at the time of filing notices of such liens, except as hereinafter provided.

§ 10. *Filing of notice*—The notice of lien may be filed at any time during the progress of the work and the furnishing of the materials, or within ninety days after the completion of the contract, or the final performance of the work, or the final furnishing of the materials, dating from the last item of work performed or materials furnished . The notice

TWO STOVES IN THE SPACE OF ONE



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No. 1

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The perfect and complete working apparatus for both Winter and Summer, in a climate where most of the time the coal stove is a comfort, but where there are many summer days when the gas stove is a blessing.

Cheaper in the long run by far than a gas stove alone and no end better for cooking, as you know.

F. B. CALLISTER

131 Main Street West

A Sterling Stove or Range "Has No Equal."

of lien must be filed in the clerk's office of the county where the property is situated. If such property is situated in two or more counties, the notice of lien shall be filed in the office of the clerk of each of such counties. The county clerk of each county shall provide and keep a book to be called the "lien docket," which shall be suitably ruled in columns headed "owners," "lienors," "property," "amount," "time of filing," "proceedings had," in each of which he shall enter the particulars of the notice, properly belonging therein. The date, hour and minute of the filing of each notice of lien shall be entered in the proper column. The names of the owners shall be arranged in such book in alphabetical order. The validity of the lien and the right to file a notice thereof shall not be affected by the death of the owner before notice of the lien is filed.

§ 11. *Service of copy of notice*—At any time after filing the notice of lien, the lienor may serve a copy of such notice upon the owner, by delivering the same to him personally, or if the owner cannot be found, to his agent or attorney, or by leaving it at his last known place of residence in the city or town in which the real property or some part thereof is situated, with a person of suitable age and discretion, or by registered letter addressed to his last known place of residence, or, if such owner has no such residence in such city or town, or cannot be found, and he has no agent or attorney, by affixing a copy thereof conspicuously on such property, between the hours of 9 o'clock in the forenoon and 4 o'clock in the afternoon. Until service of the notice has been made, as above provided, an owner, without knowledge of the lien, shall be protected in any payment made in good faith to any contractor or other person claiming a lien. A failure to serve the notice does not otherwise affect the validity of such lien.

§ 15. *Assignments of contracts and orders to be filed*—No assignment of a contract for the performance of labor or the furnishing of materials for the improvement of real property or of the money or any part thereof due or to become due therefor, nor an order drawn by a containing the substance thereof and such assignment or a copy of each payment of such money shall be valid, until the contract or a statement cotaining the substance thereof and such assignment or a copy of each or a copy of such order, be filed in the office of the county clerk of the county where the real property improved or to be improved is situated, and such contract, assignment or order shall have effect and be enforceable from the time of such filing. Such clerk shall enter the facts relating to such assignment or order in the "lien docket" or in another book provided by him for such purpose.

§ 16. *Duration of lien*—No lien specified in this article shall be a lien for a longer period than one year after the notice of lien has been filed, unless within that time an action is commenced to foreclose the lien, and a notice of the pendency of such action, whether in a court of record or in a court not of record, is filed with the county clerk of the county in which the notice of lien is filed, containing the names of the parties to the action, the object of the action, a brief description of the real property affected thereby, and the time of filing the notice of lien; or unless an order be granted within one year from the filing of such notice by a court of record, continuing such lien, and such lien shall be redocketed as of the date of granting such order and a statement made that such lien is continued by virtue of such order. No lien shall be continued by such order for more than one year from the granting thereof, but a new order

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and entry may be made in each successive year. If a lienor is made a party defendant in an action to enforce another lien, and the plaintiff or such defendant has filed a notice of the pendency of the action within the time prescribed in this section, the lien of such defendant is thereby continued. Such action shall be deemed an action to enforce the lien of such defendant lienor. The failure to file a notice of pendency of action shall not abate the action as to any person liable for the payment of the debt specified in the notice of lien, and the action may be prosecuted to judgment against such person.

BUILDING ORDINANCE

Passed August 23, 1904

BE IT ORDAINED BY THE COMMON COUNCIL OF THE CITY OF ROCHESTER AS FOLLOWS:

CHAPTER I

BUILDINGS AND COMBUSTIBLES

ARTICLE I. General Provisions

ARTICLE II. Provisions as to Buildings

ARTICLE III. Provisions as to Combustibles and Explosives

ARTICLE IV. Penalties and Repeals

ARTICLE I

GENERAL PROVISIONS

Section 1. *Name and nature of chapter*—The provisions of this chapter shall constitute and be known as "The Building Ordinance of the City of Rochester." This ordinance is hereby declared to be remedial, and is to be construed liberally to bring about the greatest public good and the least individual hardship. (*As amended Sept.* 11, 1906.)

§ 2. *Definition of terms*—Terms used in this ordinance shall have the following meanings:

THE BUREAU—The bureau of buildings and combustibles.

THE COMMISSIONER—The commissioner of public safety.

OWNER—Any person, firm, corporation or agent controlling property.

MEASUREMENT OF BUILDINGS—"The height" is the perpendicular distance of the highest ceiling above the highest street level opposite the principal front; "the length" is the greatest linear dimension; and "the width" is the linear dimension next the greatest.

ALTERATION—Any change or addition in or upon any building affecting an external party or partition wall, chimney, floor or stairway.

W. E. Woodbury & Co.

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Rochester Elmira Geneva Batavia

◆

WHOLESALE HOUSE: 33-37 Corinthian Street.

RETAIL STORES: Monroe Avenue and Broadway. 175 and 177 Lake Avenue.
196 West Avenue. South Ave. and Sanford Street. University and Atlantic Aves.
228 Lyell Avenue. 190 Plymouth Avenue. 482 North Goodman Street.

BATAVIA STORE: Jackson Street.

GENEVA STORE: Exchange and Castle Streets.

ELMIRA STORE: 325 East Water Street,

WAREHOUSE: Exchange Street and N. Y., L. E. & W. R. R.

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Tin, Slating and Gravel Roofing

PRACTICAL TIN, SHEET IRON and CORNICE WORK
ROOFING and ALL KINDS OF JOBBING
BLOW PIPE WORK, SMOKE STACKS and HEAVY
SHEET IRON WORK
METAL CEILINGS

279 MILL STREET Cor. Factory
ROCHESTER, N. Y.

ORDINARY REPAIRS—The reconstruction or renewal of any existing part of a building or of its fixtures or apparatus by which its fire risk, strength or sanitation is not affected or modified.

DWELLING—A building which shall be designed for, or used as, a residence for not more than two separate and distinct families or households.

APARTMENT HOUSE—A building which shall be designed for, or used as, a residence for three or more families or households, living independently of each other, and in which every such family or household shall have provided for it a set bath tub and water closet, separate and apart from any other, and with or without kitchen.

TENEMENT HOUSE—A building, or any portion thereof, which is designed for, or used as, a residence for three or more families living independently of each other, doing their cooking on the premises, and having a common right in the halls, stairways, yards, and water closets.

HOTEL—A building designed, or used, for supplying food and shelter to transient guests, and having a general public dining room or cafe, or both.

BOARDING HOUSE—A building designed, or used, for supplying food and shelter to permanent boarders and having a general public dining room.

LODGING HOUSE—A building designed or used, for supplying shelter to lodgers, but in connection with which no public cafe or dining room is maintained.

OFFICE BUILDING—One which shall be divided into rooms above the first story, and be designed, or used, for business purposes and no part of which shall be used for living purposes, excepting only for the janitor and his family.

STORE—A building designed, or used, fo rthe sale of merchandise.

WAREHOUSE—A building used for the storage of merchandise.

FACTORY—A building in which goods, wares or merchandise are manufactured.

PUBLIC BUILDING—One containing an assembly room with fifteen hundred square feet or more of floor area, which has been, or is to be, used as a theater, church, school, convention hall, dance hall, or lodge room.

THEATER—A public building designed or used for the presentation of dramatic or other performances.

VENEERED BUILDING—A frame structure, the walls covered above the foundation wall with brick or stone four inches thick.

FRAME CONSTRUCTION—Exterior walls of wood, wood veneered with brick or stone, or covered with plaster, corrugated iron, or sheet metal.

ORDINARY CONSTRUCTION—Wood joists, with wood or iron posts and beams.

MILL CONSTRUCTION—Wooden girders and joists supporting floors and roof having a sectional area of not less than sixty square inches, and

Are You Going to Heat Your House with

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No doubt you are—if wise—because FIRST COST IS CHEAPER — MAINTENANCE IS CHEAPER — and RESULTS ARE MORE SATISFACTORY.

Having decided to put in a Hot Air Furnace, we don't want you to forget the merits of the "NORMAN" line of PHOENIX and EQUATOR HOT AIR FURNACES—made in Rochester—by a firm who have been in business here since 1853—and FULLY GUARANTEED.

The best way that you can help Rochester, and yourself incidentally, is to patronize home industry. Don't buy out-of-town furnaces, but insist upon having the "*Norman*" put in your new home.

Call us up on the 'phone and we will give you full particulars—No. 2192 either 'phone.

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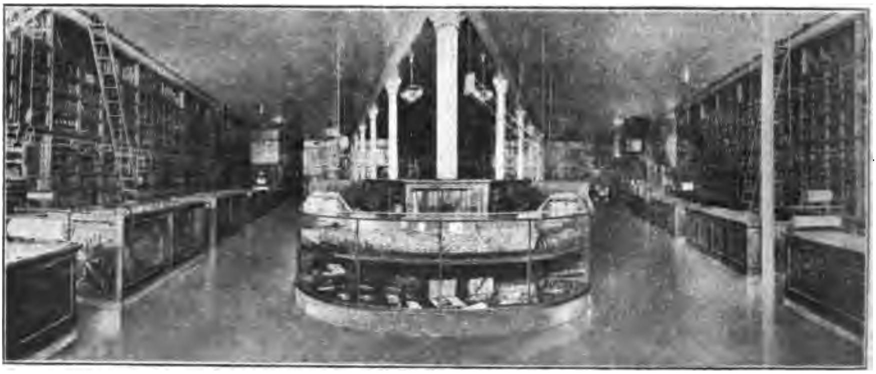

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above the joists a solid timber floor not less than two and five-eighths inches thick for spaces less than three feet six inches between joists, three and one-eighth inches thick for spaces up to four feet six inches between joists, and three and five-eighths inches thick for spaces up to five feet six inches between joists; all such floors tongued and grooved. These thicknesses may be seven-eighths of an inch less where the said tongued and grooved floor is covered by a floor not less than seven-eighths of an inch thick.

FIRE-PROOF CONSTRUCTION—All parts carrying weights or resisting strains constructed wholly of stone, burnt clay, iron, steel or Portland cement concrete, and all partitions and stair and elevator enclosures made entirely of incombustible material, and all metallic structural members protected against the effect of fire by coverings of a material which must be incombustible and a slow heat conductor. The interior trim of such buildings, including doors and door and window casings, may be of wood.

SKELETON OR STEEL CONSTRUCTION—All external and internal loads and strains transmitted from the top of the building to the foundation by a skeleton or frame-work of rolled or cast metal.

FOOTING COURSE—Projecting course or courses under base of foundation wall.

FOUNDATION, BASEMENT OR CELLAR WALLS—Those below the floors or joists, which are on or next above the grade line.

CELLAR—The basement or lower story of any building of which one-half or more of the height from the floor to the ceiling is below the highest level of the street or earth level adjoining.

A STORY—The perpendicular distance from the top of beams or joists in one floor to the corresponding point in next floor.

BASEMENT STORY—One whose floor is less than half the height of the story below the highest level of the street or earth level adjoining.

FIRST STORY—One whose floor is first above the basement story or cellar.

SECOND STORY—One whose floor is first above the ground story. Other stories to be numbered in regular succession, counting upwards.

BUILDING LINE—The line of demarkation between public and private space.

AREAS OUTSIDE OF BUILDING LINE—Sub-surface excavations adjacent to building line for light or ventilation of cellars or basements.

BEARING WALL—One on which joists, beams, trusses or girders rest.

PARTY WALL—One used, or built in order to be used, as a separation of two or more buildings. A wall built upon dividing line between adjoining premises for their common use.

PARTITION WALL—Any interior wall in a building.

EXTERNAL WALL—Every outer wall or vertical inclosure of a building other than a party wall.

RETAINING WALL—One used for the support and maintenance of a body of earth.

S. E. WHITE
President

J. O'CALLAGAN
Sec. and Treas.

ARTHUR WARREN
Vice-President

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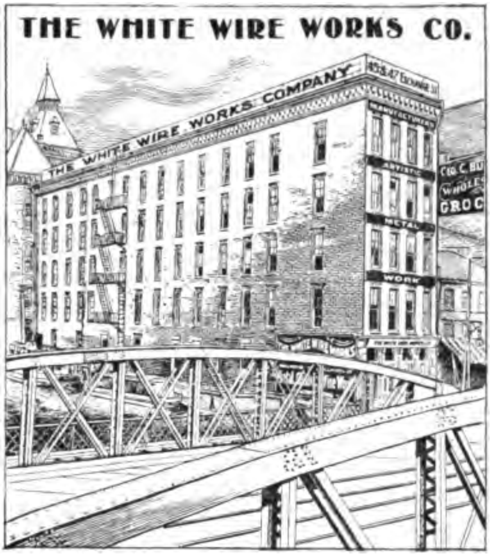
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57-59 ST. PAUL STREET
ROCHESTER, N. Y.

ROCHESTER 'PHONES 3333 and 5933 **BELL 'PHONE 2912 Main**

THICKNESS OF WALL.—The minimum of thickness of any wall.

COMMON HARD BRICK—Manufactured by pressure in separate moulds and burned almost to a point of vitrifaction, and giving out a clear ringing sound when struck with metal.

COMMON SOFT BRICK—Called "salmon brick," will not ring when struck with metal.

PRESSED FRONT BRICK—Manufactured by high pressure in separate moulds and burned to the highest point of consolidation without vitrifaction.

REINFORCED CONCRETE—Portland concrete containing iron or steel bearing, stiffening or tension bars, rods, or cables, uniformly spaced and running in one direction only without any intermediate ties.

ARMORED CONCRETE—Portland concrete which is reinforced by iron or steel lattice, woven or cut work of uniform mesh, usually less but not exceeding the thickness of the concrete.

EXPLOSIVE COMPOUND OR MIXTURE—A substance that alone or in combination with other substances is capable of causing sudden and great development of gases and consequent violent increase of pressure producing rapid flaming combustion or a destructive blow.

FIRE-WORKS—Compounds prepared for the purpose of obtaining visible or audible pyrotechnic effects by combustion or explosion.

§ 3. *Organization of the bureau*—In the department of public safety of the city of Rochester there shall be a bureau to be known as "The Bureau of Buildings and Combustibles." The head of said bureau shall be the commissioner of public safety and, whenever the board of estimate and apportionment shall so determine, he shall appoint a fire marshal and other subordinates for the conduct of the business of the bureau, to whom said commisisoner may delegate any or all of his powers and duties hereunder.

§ 4. *Duties and powers of the bureau*—The bureau shall be charged with the enforcement of the ordinances of the common council relating to the erection and inspection of buildings, and to the storage and sale of explosives and combustibles.

The commissioner or any authorized employee of the bureau, shall have the power to enter into and examine buildings and structures of every description and all lots and inclosures to see that the laws of the state and ordinances of the common council are complied with, and to prevent the erection and maintenance of buildings and structures which do not conform to law. They shall also have power to examine buildings or premises with a view to insure the safe storage of combustibles and explosives as hereafter prescribed in this ordinance. They shall have full power to pass upon any question arising under the provisions of this ordinance relative to the plans, manner of construction or materials to be used in the erection alteration, repair or moving of any building, or the storage of combustibles or explosives. They may order and compel the suspension of any work and prohibit the use of any material or machinery in violation of the provisions of this ordinance, and they may make such tests as they deem necessary to determine the safety of any building, material or machinery which it becomes their duty to inspect.

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No person shall continue the erection of any building, or use of any material or machinery in or about any building, after it has been forbidden in writing by the commissioner or a duly authorized employee of the bureau.

With the written consent of the mayor the commissioner may employ expert counsel in any matter concerning the bureau at such compensation as may be agreed upon by the board of estimate and apportionment.

ARTICLE II

PROVISIONS AS TO BUILDINGS.

§ 5. *No building without permission of bureau*—No building shall be erected, altered, repaired or moved without the permission of the bureau of buildings and combustibles and in accordance with the terms of this ordinance.

§ 6. *Application for building permit; filing plans*—Before any person, owner, agent, builder or building mover shall erect, alter, repair or move any building or structure or commence excavation therefor, he shall make application at the office of the bureau for a permit for that purpose, furnishing a written statement of the proposed location of the building, its character, use, location on the premises, the full name and address of the owner, and whether any existing building is to be demolished. The applicant shal lalso furnish the bureau with a copy of the general drawings, plans and specifications of such proposed erections, alterations or repairs, which shall sufficiently show the character and extent thereof, and the purpose of the builder to comply with this ordinance. Said plans shall be left with the bureau a sufficient length of time for their proper examination and approval, and the plans of all buildings over ten thousand dollars in value shall be filed permanently with the bureau, but said plans when filed shall be kept exclusively for the use of the bureau and shall not be for public inspection. Plans and specifications of any building erected, altered or repaired hereunder not left on file shall be open to the inspection of any authorized employee of the bureau at all reasonable times and no person shall make any change in such plans or in the structural parts of such building, alterations or repairs without the consent of the bureau. The provisions of this ordinance do not apply to "ordinary repairs" as defined herein, for which no permit is necessary, though notice to the bureau is advisable in all cases.

§ 7. *Granting permits for buildings; revocation*—If it shall appear from said application and plans that the ordinances of said city are, and will be, complied with, a permit may be granted by the bureau authorizing such erection, alteration, repair or moving. Such permit shall contain the name and address of the owner or owners of the building, the date of granting the permission, and the time when the same shall expire, together with the estimated cost of said building, its character and use, dimensions and location on the premises. No such permit shall be of force after the expiration of six months from the date when granted, unless within that time the person to whom the permit was issued shall have commenced the erection, alteration or repair authorized by said permit. A correct record shall be kept of all permits issued. The bureau shall have full power to revoke and cancel any permit or certificate of approval granted in case the person to whom the same is issued fails to comply with the provisions of this ordinance.

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NOTE—As to the protection of persons employed on buildings in cities—Labor Law, § 20, as amended L. 1905, Ch. 520. Inspection of Raines hotels—Liquor Tax Law, § 31 b, sub-div. (2), added, L. 1905, Ch. 698.

§ 8. *Applications as to wooden buildings*—Any person who desires to obtain permission to erect, alter, repair or move a wooden building, in addition to the requirements of section six of this ordinance, shall serve one week's notice in writing, of his intended application, upon all owners, occupants or agents of houses and lots within the distance of one hundred feet from where such building is to be erected, except such as may have given written consent to the erection of such building, and shall furnish to the bureau at the time said application is made a verified statement that the conditions of this section have been complied with.

§ 9. *Wooden buildings prohibited in certain limits*—No building of frame construction hereafter shall be erected within the following limits:

Beginning at the intersection of Man Street W. and the Erie Canal, thence along the east line of said canal to Oak Street, thence through Oak Street to Allen Street, thence through Allen Street to Sophia Street, thence through Sophia Street to Commercial Street, thence through Commercial Street to State Street, thence through State Street to Platt Street, thence through Platt Sreet to the west bank of the Genesee River, thence along the west bank of the Genesee River to Central Avenue, thence through Central Avenue to St. Paul Street, thence through St. Paul Street to Franklin Street, thence through Franklin Street to North Street, thence through North Street to Achilles Street, thence through Achilles Street to Stillson Street, thence through Stillson Street to East Avenue, thence through East Avenue to Chestnut Street, thence through Chestnut Street to Court Street, thence through Court Street to Exchange Street, thence through Exchange Street to Spring Street, thence through Spring Street to Plymouth Avenue, thence through Plymouth Avenue to the east bank of the Erie Canal, thence along the east bank of the Erie Canal to the place of beginning, including the lots and parcels of land on both sides of the streets above mentioned; except that the bureau may permit the erection of temporary one-story frame sheds at any place for the use of builders, adjacent to buildings in course of erection, which sheds shall be demolished upon the completion of said buildings.

§ 10. *Buildings classified*—For convenient reference all buildings are classified as follows:

Class I. Shall include all buildings used for the sale, storage or manufacture of merchandise and all public livery boarding or sale stables.

Class II. Shall include office buildings and public buildings as defined in this ordinance, except theaters.

Class III. Shall include all brick buildings used for residence purposes, whether called dwellings, tenements, flats, apartment houses, hotels, asylums or hospitals.

Class IV. Shall include frame dwellings and private stables.

Class V. Shall include theaters.

§ 11. *Requirements as to style of construction*—As to the general style of construction of buildings erected the following rules shall govern:

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(a) All buildings over six stories in height, except churches and grain elevators.

(b) All buildings erected to be used, or used, as hotels, over three stories in height; as schools, hospitals, asylums, or public buildings over two stories in height.

(c) Boiler rooms containing boilers carrying fifteen pounds or more pressure, engine rooms in all buildings of Classes I, II, and V, and in tenements, apartment houses, hotels, asylums and hospitals.

Mill or ordinary construction may be allowed in all buildings not otherwise specified in this section. The limit for the height of buildings of ordinary construction shall be five stories.

§ 12. *Quality of materials*—The quality of materials used in all buildings shall be as follows:

BRICK—The brick shall be good, hard, well burnt brick. When old brick are used in any wall they shall be thoroughly cleaned.

SAND—The sand used for mortar shall be clean, sharp grit sand, free from loam or dirt, and shall not be finer than standard samples kept in the office of the bureau.

LIME MORTAR—Lime mortar shall be made of one part of lime and not more than four parts of sand. All lime used for mortar shall be thoroughly burnt, of good quality, and properly slacked before it is mixed with the sand.

CEMENT MORTAR—Cement mortar shall be made of cement and sand in the proportion of one part of cement and not more than three parts of sand and shall be used immediately after being mixed. The cement and sand are to be measured and thoroughly mixed before adding water. Cements must be very finely ground and free from lumps. Cements classed as Portland cement shall be considered to mean such cement as when tested neat, after one day set in air, will be capable of sustaining without rupture a tensile strain of at least one hundred and twenty pounds per square inch, and after one day in air and six days in water be capable of sustaining without rupture a tensile strain of at least three hundred pounds per square inch. Cements other than Portland cement shall be considered to mean such cement as, when tested neat, after one day set in air, will be capable of sustaining without rupture a tensile strain of at least sixty pounds per square inch, and after one day in air and six days in water be capable of sustaining without rupture a tensile strain of at least one hundred and twenty pounds per square inch. Said tests shall be made under the supervision of the bureau at such times as it may determine and a record of all cements answering the above requirements shall be kept for public information.

CEMENT AND LIME MORTAR—Cement and lime mortar mixed shall be made of one part of lime, one part of cement, and not more than three parts of sand to each.

PLASTER—No plaster which has plaster of Paris or lime as an ingredient will be classed as a fire or water resisting plaster. Where plastering is used in connection with fire-proof or semi-fire-proof construction,

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asbestos plastering, or hard plaster equally as good, shall be used, except that the finishing coat, if white, may be an ordinary putty coat.

CONCRETE—Concrete for foundations shall be made of at least one part of cement, two parts of sand and five parts of clean, broken stone free from dirt and dust, of such size as to pass in any way through a two-inch ring, or good, clean gravel may be used in the same proportion as broken stone. The cement, sand and stone or gravel shall be measured and mixed as is prescribed for mortar. All concrete when in place shall be properly rammed and allowed to set without being disturbed.

TIMBER—All timbers and wood beams shall be of good sound material free from rot, large and loose knots, shakes or any imperfection whereby the strength may be impaired, and be of such size and dimensions as the purposes for which the building is intended require.

WROUGHT IRON—All wrought iron shall be uniform in character, fibrous, tough and ductile. It shall have an ultimate tensile resistance of not less than forty-eight thousand pounds per square inch, an elastic limit of not less than twenty-four thousand pounds per square inch, and an elongation of twenty per cent in eight inches, when tested in small specimens.

STEEL—All structural steel shall have an utlimate tensile strength of from fifty-four thousand to sixty-four thousand pounds per square inch. Its elastic limit shall not be less than thirty-two thousand pounds per square inch and a minimum elongation of not less than twenty per cent in eight inches. Rivet steel shall have an ultimate strength of from fifty thousand to fifty-eight thousand pounds per square inch.

CAST STEEL—Shall be made of open earth steel, containing one-quarter to one-half per cent of carbon, not over eight one-hundredths of one per cent of phosphorous, and shall be practically free from blow holes.

CAST IRON—Shall be of good foundry mixture, producing a clean, tough, gray iron. Sample bars, five feet long, one inch square, cast in sand moulds, placed on supports four feet six inches apart, shall bear a central load of four hundred and fifty pounds before breaking. Castings shall be free from serious blow holes, cinder spots and cold shuts. Ultimate tensile strength shall not be less than sixteen thousand pounds per square inch when tested in small specimens.

TESTS OF NEW MATERIALS—New structural material of whatever nature shall be subjected to such tests to determine its character and quality, as the bureau shall direct; the tests shall be made under the supervision of the bureau, or it may order the architect or owner to file a certified copy of the results of such tests as it may direct.

§ 13. *Strength of materials*—The materials used in all buildings shall have the following strength:

MASONRY WORK—The safe-bearing load to apply to brick wrok shall be taken at eight tons per superficial foot when lime mortar is used; eleven and one-half tons per superficial foot when lime and cement mortar mixed is used; fifteen tons per superficial foot when cement mortar is used. The safe-bearing load to apply to rubble-stone work shall be taken at ten tons per superficial foot when Portland cement is used; when cement other than Portland cement is used eight tons per superficial foot; when lime and cement mortar mixed is used seven tons per per

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superficial foot; and when lime mortar is used five tons per superficial foot. The safe-bearing load to apply to concrete when Portland cement is used shall be taken at fifteen tons per superficial foot; and when cement other than Portland is used eight tons per superficial foot.

WEIGHTS—In computing the weight of walls a cubic foot of brick work shall be deemed to weigh one hundred and fifteen pounds. Sandstone, white marble, granite and other kinds of building stone shall be deemed to weigh one hundred and seventy pounds per cubic foot.

COMPUTATIONS—The dimensions of each piece or combination of materials required shall be ascertained by computations according to the rules prescribed by this ordinance.

FACTORS OF SAFETY—Where the unit stress for any material is not prescribed in this ordinance the relation of allowable unit stress to ultimate strength shall be as one to four for metals, subjected to tension or transverse stress, as one to six for timber, and as one to ten for natural or artificial stones and brick or stone masonry. But whenever working stresses are prescribed in this ordinance varying the factors of safety hereinabove given, the said working stresses shall be used.

STRENGTH OF COLUMNS—In columns or compression members with flat ends of cast iron, steel, wrought iron or wood, the stress per square inch shall not exceed that given in the following tables:

When the Length Divided by Least Radius of Gyration Equals	WORKING STRESSES PER SQUARE INCH OF SECTION		
	Cast Iron Pounds	Steel Pounds	Wrought Iron Pounds
120		8,240	4,400
110		8,820	5,200
100		9,400	6,000
90		9,980	6,800
80		10,560	7,600
70	9,200	11,140	8,400
60	9,500	11,720	9,200
50	9,800	12,300	10,000
40	10,100	12,880	10,800
30	10,400	13,460	11,600
20	10,700	14,040	12,400
10	11,000	14,620	13,200

And in like proportion for intermediate ratios.

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	Long Leaf Yellow Pine Pounds	White Pine Norway Pine Spruce Pounds	Oak Pounds
30	460	350	390
25	550	425	475
20	640	500	560
15	730	575	645
12	784	620	696
10	820	650	730

And in like proportion for intermediate ratios. Five-eighths the value given for white pine shall also apply to chestnut and hemlock posts. For locust posts use one and one-half the value given for white pine.

Columns and compression members shall not be used having an unsupported length of greater ratios than given in the tables. Any column eccentrically loaded shall have the stresses caused by such eccentricity computed, and the combined stresses resulting from such eccentricity at any part of the column, added to all other stresses at that part shall in no case exceed the working stresses stated in this ordinance. The eccentric load of a column shall be considered to be distributed equally over the entire area of that column at the next point below at which the column is securely braced laterally and in the direction of the eccentricity.

WORKING STRESSES—The safe carrying capacity of the various materials of construction, except in the case of columns, shall be determined by the following working stresses in pounds per square inch of sectional area:

COMPRESSION (DIRECT)

	Pounds
Rolled steel	16,000
Cast steel	16,000
Wrought iron	12,000
Cast iron (in short blocks)	16,000
Steel pins and rivets (bearing)	20,000
Wrought iron pins and rivets (bearing)	15,000

	With Grain Pounds	Across Grain Pounds
Oak	900	800
Yellow pine	1,000	600
White pine	800	400
Spruce	800	400
Locust	1,200	1,000
Hemlock	500	500
Chestnut	500	1,000
Concrete (Portland) cement, 1; sand 2; stone, 5		208
Concrete (Portland) cement, 1; sand, 2; stone, 4		230
Concrete, or equal, cement, 1; sand,2; stone, 4		125
Concrete, Buffalo or Akron, or equal, cement, 1; sand, 2; stone, 5		111

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	With Grain Pounds	Across Grain Pounds
Rubble-stone work in Portland cement mortar...		140
Rubble-stone work in Buffalo or Akron, or equal, cement mortar		111
Rubble-stone work in lime and cement mortar....		97
Rubble-stone work in lime mortar..............		70
Brick work in Portland cement mortar; cement, 1; sand, 3		250
Brick work in Buffalo or Akron, or equal cement mortar; cement, 1; sand, 3.................		208
Brick work in lime and cement mortar; cement, 1; lime, 1; sand, 6...........................		160
Brick work in lime mortar; lime, 1; sand, 4......		111
Granites (according to test).................	1,000 to	2,400
Greenwich stone...........................		1,200
Local limestone............................		1,300
Limestones (according to test)...............	700 to	2,300
Marbles (according to test).................	600 to	1,200
Sandstones (according to test)..............	400 to	1,600
Medina....................................		2,000
Brick, common hard		300
Slate......................................		1,000

TENSION (DIRECT)

	Pounds
Rolled steel	16,000
Cast steel	16,000
Wrought iron	12,000
Cast iron	3,000
Yellow pine	1,200
White pine	800
Spruce...	800
Oak..	1,000
Hemlock..	600

SHEAR

	Pounds
Steel web plates.....................................	9,000
Steel shop rivets and pins............................	10,000
Steel field rivets....................................	8,000
Steel field bolts.....................................	7,000
Wrought iron web plates...............................	6,000
Wrought iron shops rivets and pins....................	7,500
Wrought iron field rivets.............................	6,000
Wrought iron field bolts..............................	5,500
Cast iron	3,000

	With Fiber Pounds	Across Fiber Pounds
Yellow pine	70	500
White pine	40	250
Spruce.................................	50	320
Oak....................................	100	600
Locust.................................	100	720
Hemlock................................	40	275
Chestnut...............................	..	150

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Riveted steel beams (net flange section)	14,000
Rolled wrought iron beams	12,000
Rolled wrought iron pins, rivets and bolts	15,000
Riveted wrought iron beams (net flange section)	12,000
Cast iron, compression side	16,000
Cast iron, tension side	3,000
Yellow pine	1,200
White pine	800
Spruce	800
Oak	1,000
Locust	1,200
Hemlock	600
Chestnut	800
Granite	180
Local limestone	150
Slate	400
Marble	120
Medina	100
Bluestone, North River	300
Concrete (Portland) cement, 1; sand, 2; stone, 4	30
Concrete (Portland) cement, 1; sand, 2; stone, 5	20
Concrete (Buffalo or Akron, or equal) cement, 1; sand, 2; stone, 5	10
Concrete (Buffalo or Akron, or equal) cement, 1; sand, 2; stone, 4	16
Brick (common)	50
Brick work (in cement)	30

STRENGTH OF TEMPORARY SUPPORTS

Every temporary support placed under any wall, girder or beam, during the erection, finishing, alteration or repairing of any building or structure, or any part thereof, shall be built of sufficient strength to carry safely the load to be placed thereon.

§ 14. *Demolishing buildings*—In demolishing any building, story after story shall be completely removed, and the brick, timbers and other structural parts of each story lowered to the ground immediately upon displacement. The owner, architect, builder or contractor of any building, structure, premises, wall, platform, staging or flooring to be demolished shall give not less tha twenty-four hours' notice to the bureau of such intended demolition. Every contractor or other person in repairing or tearing down or removing debris from any building, shall keep all such debris thoroughly dampened with water so as to prevent the dust occasioned thereby from becoming a nuisance in the neighborhood where such building is located.

§ 15. *Excavations*—All excavations for buildings shall be properly guarded and protected so as to prevent the same from becoming dangerous to life or limb and shall be sheath piled where necessary to prevent the adjoining earth from caving in by the person causing the excavations to be made. Plans filed in the bureau shall be accompanied by a statement of the character of the soil at the level of the footings. Whenever an excavation of either earth or rock for building or other purposes

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shall be carried to the depth of more than ten feet below the curb, the person causing such excavation to be made, at his own expense shall preserve any contiguous wall or structure from injury, and support the same by proper foundations, so that the said wall or structure shall remain practically as safe as before such excavation was commenced. If the necessary license is not accorded to the person making such excavation by the adjoining owner, then it shall be the duty of said owner to make the contiguous wall or structure safe, and support the same by proper foundations so that adjoining excavations may be made, and he shall be permitted to enter upon the premises where such excavation is being made for that purpose, when necessary. If such excavation shall not be carried to a depth of more than ten feet below the curb, the owner of such contiguous wall or structure shall preserve the same from injury as above described.

In case an adjoining party wall is intended to be used by the person causing the excavation to be made, he shall, at his own expense, preserve such wall from injury and support the same by proper foundations, so that it shall remain practically as safe as before the excavation was commenced.

If the person whose duty it shall be to preserve or protect any wall or structure from injury shall neglect so to do after having had notice of twenty-four hours from the bureau, the commisisoner or any duly authorized employee of the bureau may enter upon the premises and employ such labor, and furnish such materials, and take such steps as, in his judgment, may be necessary to make the same safe, at the expense of the person whose duty it is to keep the same safe and secure. Any person doing the said work, or any part thereof, under and by direction of the bureau, may maintain an action against the person whose duty it was to make said wall or structure safe to recover the value of the work done and materials furnished in the same manner as if he had been employed to do the said work by the said person. When an excavation is made on any lot, the person causing such excavation to be made shall build, at his own expense, a retaining wall to support the adjoining earth, which wall shall be carried to the height of the adjoining earth, and be properly protected by coping. The thickness of such retaining wall at its base shall be in no case less than one-fourth of its height.

NOTE—Excavations near streets shall be guarded and lights provided, see Public Safety and Good Order, § 37, subdivvs. (d) and (e); also Water Works Rules, § 6.

§ 16. *Bearing capacity of soil*—Where no test of the sustaining power of the soil is made, different soils, excluding mud, at the bottom of the footings, shall be deemed safely to sustain the following loads to the superficial foot, namely: Soft clay, one ton per square foot; ordinary clay and sand together, in layers wet and springy, two tons per square foot; loam, clay or fine sand, firm and dry, three tons per square foot; very firm coarse sand, stiff gravel or hard clay, six tons per square foot; hard pan, ten tons per square foot. Where a test is made of the sustaining power of the soil the bureau shall be notified and a record of the test shall be filed. When a doubt arises as to the safe sustaining power of the earth upon which a building is to be erected the bureau may order borings to be made, or direct the sustaining power of the soil to be tested by, and at the expense of, the owner of the proposed building.

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§ 17. *Foundations*—The foundations of every building shall be laid on solid earth or level rock, except that when solid earth or rock are not obtainable such foundations may be laid upon piles or ranging timbers. Foundations shall not be built in wet soil unless the trenches in which the work is being executed are kept free from water by draining, bailing, pumping or otherwise, if such is possible, until after the completion of the work upon the foundations. Every building except buildings erected upon solid rock shall have foundations of brick, stone, iron, steel or Portland cement concrete laid not less than four feet below the surface of the earth, or the solid ground or level surface of rock, or upon piles or ranging timbers when solid earth or rock is not found. Piles intended to sustain a wall, pier or post shall be spaced not more than thirty-six or less than twenty inches on centers, and they shall be driven to a solid bearing if practicable to do so, and the number of such piles shall be sufficient to support the superstructure proposed. No pile shall be used of less dimensions than five inches at the small end and ten inches at the butt for piles of twenty feet or less in length, and twelve inches at the butt for piles more than twenty feet in length. No pile shall be weighted with a load exceeding forty thousand pounds. When a pile is not driven to refusal, its safe sustaining power shall be determined by the following formula: Twice the weight of the hammer in tons multiplied by the height of the fall in feet divided by lease penetration of pile under the last blow in inches plus one. The bureau shall be notified of the time when test piles will be driven. The tops of all piles shall be cut off below the lowest water line. When required, concrete shall be rammed down in the interspaces between the heads of the piles to a depth and thickness of not less than twelve inches and for one foot in width outside of the piles. Where ranging and capping timbers are laid on piles for foundations, they shall be of hard wood not less than six inches thick and properly joined together, and their tops laid below the lowest water line. Where metal is incorporated in, or forms part of, a foundation it shall be thoroughly protected from any rust by paint, asphaltum, concrete, or by such materials and in such manner as may be approved by the bureau. When footings of iron or steel for columns are placed below the water level, they shall be similarly coated, or enclosed in concrete, for preservation against rust. When foundations are carried down through earth by piers of stone, brick or concrete in caissons, the loads of the same shall not be more than fifteen tons to the square foot when carried down to rock; ten tons to the square foot when carried down to firm gravel or hard clay; eight tons to the square foot in open caissons or sheet pile trenches when carried down to rock.

§ 18. *Foundation walls*—Foundation walls shall be built of stone, or brick with cement mortar, Portland cement concrete, iron or steel, except foundations for buildings of Class IV, and for buildings not more than two stories in height, which may be built with lime mortar. If built of Portland cement concrete, they shall be at least eight inches thicker than the wall next above them to a depth of twelve feet below the curb level, and for every additional ten feet, or part thereof deeper, they shall be increased four inches in thickness. The footing or base course shall be of stone or concrete, or both, or of concrete and stepped up brick work, of sufficient thickness and area safely to bear the weight to be imposed thereon. If the footings or base course be of concrete, the concrete shall not be less than twelve inches thick. If of stone, the stones shall be not less than eighteen by twenty-four inches, and at least four inches

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in thickness for walls and not less than six inches in thickness if under piers, columns or posts; the footing or base course, whether formed of concrete or stone, shall be at least eight inches wider than the bottom width of walls, and at least six inches wider on all sides than the bottom width of the said piers, columns or posts. If the superimposed load is such as to cause undue transverse strain on a footing projecting six inches, the thickness of such footing is to be increased so as to carry the load with safety, by adding extra course or courses of above dimensions. All base stones shall be well bedded and laid crosswise, edge to edge.

If stepped up footings of brick are used in place of stone above the concrete, the off-sets, if laid in single courses, shall each not exceed one and one-half inches, or if laid in double courses then each shall not exceed three inches, offsetting the first course of brick work, back one-half the thickness of the concrete base, so as properly to distribute the load to be imposed thereon.

If, in place of a continuous foundation wall, isolated piers are to be built to support the superstructure, where the nature of the ground and the character of the building make it necessary in the opinion of the bureau, inverted arches resting on a proper bed of concrete, both designed to transmit with safety the superimposed loads, shall be turned between the piers. The thrust of the outer piers shall be taken up by suitable wrought iron or steel rods and plates.

Grillage beams of wrought iron or steel resting on a proper concrete bed may be used. Such beams must be provided with separators and bolts, enclosed and filled solid between with concrete, and of such size and so arranged as to transmit with safety the superimposed loads.

All stone walls twenty-four inches or less in thickness shall have at least one header extending through the wall in every three feet in height from the bottom of the wall, and in every three feet in length, and if over twenty-four inches in thickness, shall have one header for every six superficial feet on both sides of the wall, laid on the top of each other to bond together, and running into the wall at least two feet. All headers shall be at least twelve inches in width, and eight inches in thickness and consist of good flat stones. No stone shall be laid in such walls in any other position than on its natural bed. No stone shall be used that does not bond or extend into the wall at least six inches. Stones shall be firmly bedded in cement mortar, and all spaces and joints thoroughly filled.

In all cases a connection with the street sewer, where the same exists, shall be established before beginning the work of laying foundations. Before the walls of buildings are carried up above the foundation walls, the cellars shall be connected through drain tiles and catch-basins with the street sewer. Should there be no sewer in the street, or if the cellars are below the sewer or ground water level, then provisions shall be made to prevent water accumulating in the cellars to the injury of the foundations or the occupancy of the basement cellar.

External retaining walls shall be constructed of sufficient thickness to safely support the outside pressure when earth embankments are adjacent to any foundation or curb wall.

NOTE—Every building used for human habitation shall be connected with the public water service and street sewer when in access—Health Ordinance, § 9, subdiv. (f), this book. For regulations governing

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plumbers doing business with the water works see Water Works Rules, § 23. For regulations governing plumbing and drainage generally see Plumbing Rules, this book.

§ 19. *Height of walls, wind pressure and weather*—No building shall be erected the height of which shall be more than four times the average of its least horizontal dimensions.

All structures exposed to wind shall be designed to resist a horizontal wind pressure of thirty pounds of every square foot of surface thus exposed, from the ground to the top of same, including the roof, in any direction. In no case shall the overturning moment due to wind pressure exceed seventy-five per cent of the moment of stability of the structure. In all structures exposed to wind, if the resisting moments of the ordinary materials of construction, such as masonry, partitions, floors and connections are not sufficient to resist the moment of distortion due to wind pressure, taken in any direction on any part of the structure, additional bracing shall be introduced to make up the difference in the moments. In calculations for wind bracing the working stresses set forth in this ordinance may be increased by fifty per cent. In building under one hundred feet in height, provided the height does not exceed four times the average width of the base, the wind pressure may be disregarded.

In the erection of buildings of masonry construction, no wall shall be carried up at any time more than one story above another wall of the same building. The walls and skeleton framework of all buildings must be kept securely braced and otherwise protected against the effects of the weather during all building operations. All walls must have proper protection against the effects of frost, and frozen cement mortar shall not be used in any mason work.

§ 20. *Thickness of walls*—In buildings of Classes I, II, and III, except as otherwise provided herein, all surrounding walls shall be built of the thickness in inches indicated in the table herein.

Walls higher than twelve stories are to be increased in thickness proportionately.

In walls of these thicknesses, the width of openings shall not exceed fifty-five per cent of the length of the wall, but this percentage shall not apply to front and rear non-bearing walls which shall be proportioned to their loads.

Stories	Basement		Stories											
	Stone	Brick	1	2	3	4	5	6	7	8	9	10	11	12
1	18	12	12											
2	18	16	12	12										
3	20	16	12	12	12									
4	22	20	16	12	12	12								
5	24	20	16	16	12	12	12							
6	28	24	20	16	16	12	12	12						
7	28	24	20	20	16	16	12	12	12					
8	28	24	20	20	20	16	16	12	12	12				
9	30	28	24	20	20	20	16	16	12	12	12			
10	30	28	24	24	20	20	20	16	16	12	12	12		
11	32	28	24	24	24	20	20	20	16	16	12	12	12	
12	32	28	24	24	24	24	20	20	20	16	16	12	12	12

In the use of the above table a story is to be considered as fifteen feet for basement, eighteen feet for first story, fifteen feet for the second story and thirteen feet for all stories above the second story, except the top story, which may have an additional height of five feet. One story buildings in Class I may be built of eight inch walls above foundation if not more than fourteen feet in height, provided that no span of joist or roof shall exceed twenty feet. Dwellings and privates stables may be built of eight inch walls above foundation, if not more than two stories in height, with or without gables, provided also that no span of joists in such building shall exceed twenty feet. Dwellings may be built three stories high under the same conditions as the above, provided the walls are of brick twelve inches thick in first story. Foundation walls for all dwellings under two stories in height, if built of stone, shall not be less than sixteen inches in thickness, and if built of brick or concrete, not less than twelve inches in thickness.

§ 21. *Division and party walls*—Solid division or party walls shall be built of the thickness in inches indicated in the following table:

Stories	Basement		Stories											
	Stone	Brick	1	2	3	4	5	6	7	8	9	10	11	12
1	18	12	12											
2	18	16	12	12										
3	18	16	12	12	12									
4	18	16	12	12	12	12								
5	20	20	16	12	12	12	12							
6	22	20	16	16	12	12	12	12						
7	22	20	16	16	16	12	12	12	12					
8	24	20	16 20	16	16	16	12	12	12	12				
9	24	20	16 20	16 20	16	16	16	12	12	12	12			
10	26	24	16 20	16 20	16 20	16	16	16	12	12	12	12		
11	26	24	20	16 20	16 20	16 20	16	16	16	12	12	12	12	
12	26	24	20	20	16 20	16 20	16 20	16	16	16	12	12	12	12

Walls higher than twelve stories are to be increased in thickness proportionately. Where the number is double, the larger number is to be taken when fire-proof floors are used. In Class II, corridor walls that support joists on one side only, not exceeding a span of twelve feet, and the top stories where the joist spans do not exceed twenty-six feet, provided also that in both cases the height of the wall does not exceed fourteen feet, may be eight inches in thickness. In all apartment houses the dividing walls or partitions between the apartments provided for each family, where not separated by a hall or staircase, shall be made entirely of incombustible material. In the absence of definite subdivisions between the apartments of different families, eight rooms shall be counted as the equivalent of one apartment. In all building of Class II, not of fire-proof construction, there shall be for every eight rooms in any one story, dividing walls or partitions of incombustible material separating these rooms from the contiguous spaces.

When brick walls surrounded stairways, elevator shafts, shaving pits and light shafts, they shall be not less than eight inches thick, but no eight inch wall shall be built more than eighteen feet high without lateral support or anchorage, and the total height of any eight inch wall shall not exceed fifty feet.

No continuous vertical recess, chase or flue shall be made to a greater depth than four inches in a twelve-inch wall, and such recess, chase or flue may increase four inches in depth with each increase of four inches in the wall, and no recess of any kind shall be made in any eight-inch wall, except by a special permit from the bureau.

The limits of stress to which the various kinds of stone may be subjected shall be one-thirtieth of the ultimate strength developed by tests. If, however, the beds of stone used are not dressed to uniform bearing over their entire surface, then the ultimate load to which they may be subjected shall not exceed one-fiftieth of the ultimate strength of the stone as indicated by said tests. Stones with undressed beds shall be fully bedded in Portland cement mortar, over the entire surface, for all stress exceeding one-seventieth of the ultimate strength of the stone up to the limit allowed, and if the beds are dressed they shall be bedded over their entire surface in the same manner for all stress exceeding one-fortieth of the ultimate strength of the stone. It shall be permitted to leave a space of one inch all around the outer edge of stones without mortar bedding In walls built of brick and faced with ashlar, if used as bearing walls, the bricks must be laid in cement mortar. The ashlar facing shall be not less than four inches thick nor more than six times its thickness in height. Each stone must be backed off to a reasonably uniform thickness, but all the stones not necessarily to the same thickness. In such bearing walls, each stone must be anchored to backing with metallic anchors one to each two feet lineal of each course. When stone faced walls are used as bearing walls they shall be four inches thicker than required for solid brick walls under the same conditions. The backing of stone ashlar in fireproof construction shall be not less than twelve inches thick. In all walls furred with wood the brick work between the ends of wood beams shall project the thickness of the furring beyond the inner face of the wall for the full depth of the beams.

§ 22. *Parapet and fire walls*—Fire walls of brick, not less than twelve inches thick, except for buildings allowed with eight inch walls, shall be built extending above the roofs of all buildings if such roofs are flat, and also above the roofs of all buildings where the same abut against another building, or where the same stand upon any line of any lot, excepting street and alley lines. Such fire walls, where they stand upon lot lines, or where they are over the dividing walls between buildings or over the dividing walls in the interior of buildings where such are built, shall extend at least two feet above the roof of such building. Fire walls upon street and alley lines shall extend not less than twelve inches above the roofs of such buildings. Fire walls at street and alley lines may be dispensed with in all cases where the entire framing and material of the roof shall be made strictly fire-proof. The erection of parapet walls or of balustrades constructed entirely of incombustible material is permitted above the roof level of buildings of all classes, and in addition to the heights herein fixed for the same.

§ 23. *Hallow brick or cement block walls*—Where hollow walls are used their solid parts shall be bonded together, either with solid brick headers, or with metallic bond plates or anchors once in every foot of length of such wall, in every sixth course. If one of the solid parts of the wall is less than eight inches thick such wall shall not be used for supports for any building over two stories in height; but if each of the solid parts of a hollow wall are eight inches or more in thickness, such wall may be used as a bearing wall of four inches less thickness than the aggregate thickness of the parts of the hollow wall exclusive of air space. Where hollow bricks or hollow tile are used as lining or furring for bearing walls, they shall not be included in the measurement of the thickness of such walls.

Dwelling houses shall not be constructed with walls of concrete blocks, cement blocks, hollow brick or hard tile, except under the following conditions:

Walls built of concrete blocks, cement blocks, hollow brick or hollow hard tile, shall be not less than six inches wide, and each wall so built shall be faced with four inches of brick work well bonded to the hollow bricks or blocks with suitable galvanized iron anchors, the brick to be laid with full joints and the anchors to be put in every sixth course, one anchor to the brick. Walls ten inches in width may, however, be built of concrete or cement blocks without the above required brick facing, if all other requirements specified in this section are complied with.

No such walls shall be more than forty feet in length without cross-walls, angles, piers or buttresses, nor more than two stories in height, and the total height of such walls, from the foundation walls, shall not exceed twenty-two feet.

When used in any walls all materials herein mentioned shall have sufficient effective safe crushing strength safely to sustain both their weight and the floor and roof loads that may be transmitted to said walls.

§ 24. *Wall supports*—It shall be unlawful to erect, construct or build any rear, front, party, division or partition masonry wall upon wooden girders, rafters or lintels, or to support any such wall by any wooden support whatever; but all such supports shall be of iron, brick or stone, and shall rest on sufficient stone or metal bearing blocks.

§ 25. *Brick work*—No soft bricks shall be used in any part of a building exposed to the weather, or in any internal or external piers, nor in any part of a wall where there is a greater height than forty feet of wall above said brick. The bond of brick work shall be formed by laying one course of headers for at least every seven courses of stretchers. Except in freezing weather all bricks shall be thoroughly wet before laying.

All stone and brick work over openings exceeding four feet in width shall be supported with stone or iron lintels of sufficient strength to carry the superimposed weights, excepting where such stone or brick work shall be supported with substantial stone or brick arches. Al llintels supporting stone or brick work must bear on stone, brick or iron of sufficient strength.

§ 26. *Piers*—In isolated piers or divisions forming portions of walls, the least dimension shall be taken as the thickness in determining the loads which such piers may carry. If outside walls are of pier construction the piers shall be graded in size according to weights to be carried; but not less than sixteen inches for upper story, and shall increase four inches for

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height. Such arches, whether curved or flat, shall have their beds well filled with mortar and the centers shall not be struck until the mortar has set.

§ 28. *Beams*—All wooden beams and other timbers in the party wall of every building built of stone, brick or iron shall be separated from the beam or timber entering the opposite side of the wall by at least four inches of mason work. All trimmer and header beams shall be of sufficient size to sustain their loads within the limits of strains allowed by this ordinance. Wooden beams shall be trimmed away from all flues of every kind, the header and trimmer beams to be kept at least one inch from the outside of any chimney breast. Each tier of beams shall be anchored to the side, front, rear or party walls at intervals of not more than six feet apart, with suitable anchors. Where the beams are supported by girders, the girders shall be anchored to the walls and fastened to each other by suitable iron straps. The ends of beams resting upon girders shall be butted together end to end and fastened by approved methods. Every pier and wall, front or rear shall be well anchored to the beams of each story with approved anchors. Each tier of beams, front and rear, opposite each pier, shall be properly anchored. No piping or conduits of any kind whatever shall be cut down into floor beams unless they are located, or sufficient and proper provision is made so that the strength of such beams shall not be less than the provisions of this ordinance for similar uncut beams.

§ 29. *Roofs*—Where an incombustible roof is required, it shall be a roof covered with not less than four-ply, tarred or asphalted felt, each single ply weighing not less than fifteen pounds per one hundred square feet, the whole to be well nailed and swabbed with pitch or asphalt composition and covered with gravel or slag; or a covering of slate, iron, tin or burnt clay. It shall be permitted to erect on the roofs of all buildings skylights and enclosures for elevator machinery, all of which enclosures shall be constructed of incombustible material. The roofs of all buildings of every kind and class shall be designed and constructed in such manner that they will bear a load in addition to their structure and coverings of at least forty pounds for each square foot of horizontal surface without straining the materials of construction beyond the point twenty per cent less than the limits elsewhere fixed in this ordinance. All roofs now or hereafter constructed shall be provided with proper metallic leaders for conducting water from the roof to the ground or sewer in such a manner as shall protect the walls and foundations from damage, and in no case shall water from any roof be allowed to flow upon the sidewalk.

NOTE—*For regulations governing conductor pipes* see Plumbing Rules, § 5, this book.

§ 30. *Chimneys*—All chimneys shall be built of brick, stone or incombustible materials. Brick chimneys shall have walls at least eight inches in thickness unless they have tile flue linings. Stone chimneys shall have walls at least eight inches thick and shall also have such flue linings. Joists or timbers are not to rest on chimney walls, and are, in all cases, to be kept at least one inch distant from outer face of such chimney walls. No fire-place shall be built with less than eight inches of solid brick work at its back, unless said fire-place has a cast iron lining with a one-inch air space between it and the brick work, then four-inch walls may be used. No chimney shall be started or built on any floor or beam of woods. All fire-places and chimney breasts where materials are placed, whether intended for ordinary fire-place use or not, shall have trimmer arches to support hearths, and the said arches shall be at least twenty inches in width, measured from the face of the chimney breast, and they shall be constructed of brick, stone or burnt clay. The length of said trimmer arch shall be not less than the width of the chimney breast. All smoke flues of steam boilers, smelting furnaces or other apparatus that heat flues to a high temperature, shall not be less than eight inches in thickness and for twenty-five feet above the inlet shall be formed of double walls, with an air space between. The inner or flue wall shall not be less than eight inches in thickness and in all cases the thickness of walls shall be sufficient to bring the stresses within the limits provided in this ordinance. Isolated chimneys shall be built with hollow walls and shall be so designed and constructed that the stress upon any part thereof, due to the weight of the stack itself and to wind pressure, shall not exceed the limits elsewhere fixed in this ordinance as the maximum stress for brick masonry. Metallic chimneys or smoke pipes over twelve inches in diameter shall not pass through the roof of any building unless enclosed in brick or tile walls with an air space between the inclosing walls and said pipes or chimneys, the entire height through the building, except in one-story buildings, in which case a metal smoke pipe may pass through the roof, if the wood work is kept at least six inches away from such pipe and is properly protected by sheet metal. Where metallic smoke pipes of a diameter of twelve inches or less pass through a wood or plastered stud partition, they shall be surrounded, either by a body of brick, hollow tile, or porous terra cotta or other incombustible substance, measuring at least four inches all around such smoke pipe; or they shall be surrounded by a thimble, made of two concentric rings of sheet metal, at least four inches apart, and the entire thimble so constructed that there may be a free circulation of air between the two rings forming the same. Six-inch pipes from ordinary stoves may have such thimbles with two inch air space. All horizontal smoke pipes must be kept from any wood work a distance equal to their diameter, and, if nearer than twelve inches, the wood work must be protected by sheet metal, porous terra cotta, or hollow tile or plaster, for a distance of one foot on each side of said pipes. No vertical hot air pipe shall be placed in a stud partition or a wooden enclosure unless said pipe shall be double or, if single, unless the studs shall be covered with tin or plastered metal lath and the pipe be covered with asbestos paper; all openings in floors for said pipe shall be lined with tin.

§ 31. *Cornices and gutters*—The exterior cornices on all buildings erected within the fire limits, inclusive of those on show windows and gutters shall be of fire-proof material. All fire-proof cornices shall be well secured to the walls with iron anchors, independent of any wood work. In all cases the walls shall be carried up to the planking of the roof. Where the cornice projects above the roof the walls shall be carried up to the top of the cornice. The party walls shall in all cases extend above the planking of the cornice and be coped. All exterior wooden cornices or gutters that are now, or may hereafter become, unsafe or rotten shall be taken down, and if replaced, shall be constructed of some fire-proof material. All exterior cornices of wood or gutters that may be damaged by fire to the extent of one-half shall be taken down, and if replaced, shall be constructed of some fire-proof material; but if not damaged to the extent of one-half, they may be repaired with the same kind of material of which they were originally constructed.

§ 32. *Light and vent shafts*—All walls or partitions forming interior light or vent shafts, shall be built of brick, or four-by-four wood studs covered both sides with metal lath and plaster and with metal fire stops at each floor. The walls of all light or vent shafts, whether exterior or interior, shall be carried up not less than three feet above the level of the roof and if of brick shall be coped as other parapet walls. Vent shafts to light the interior of dwellings may be built of brick or hollow tile or two-inch plank with seven-eighths inch sheating, covered on the outside with sheet metal, and on the inside with metal lath and cement mortar, when extending through not more than two stories in height, and carried not less than two feet above the roof covered with a ventilating skylight of thin glass set in iron frames with a wire netting underneath. The windows in said shafts shall have metal frames and sash and wired glass. If the walls of light shafts begin at any point above the foundations of the building their means of support shall consist entirely of incombustible material. In all cases where the weight of floors abutting upon light shafts is carried on a framing independent of the enclosing walls of such light shafts, the thickness of such enclosing walls may be eight inches, but no part thereof shall be so reduced in area that the load upon the same will be more than the maximum load herein prescribed for the materials of which such walls are built.

§ 33. *Elevators and hoistways*—In any building in which there shall be any hoistway or freight elevator or well-hole not enclosed in walls constructed of brick or other fire-proof material and provided with fire-proof doors, the openings thereof through and upon each floor of said building, shall be provided with and protected by a substantial guard or gate. All elevators placed in any hotel or apartment house over three stories in height shall be enclosed in suitable walls of brick, or with a suitable frame-work of iron and burnt clay filling, or with metal frames fitted with wired glass, or of such other fire-proof material and form of construction as may be approved by the bureau. The inclosure walls in non-fire-proof buildings used as warehouses, stores or factories shall be of brick. Enclosure walls of brick shall be laid in cement mortar, and not used as bearing walls; they may be eight inches in thickness for not more than fifty feet of their uppermost height, and increasing in thickness four inches for each lower fifty feet portion or part thereof. Said walls or construction shall extend from the cellar through and at least three feet above the roof. All openings in the said walls shall be provided with standard fire-proof doors, except that the doors used for openings in buildings intended for the occupancy of one family may be of wood covered on the inner surface and edged with metal, the exception not including the openings in the cellar, nor above the roof in any such shaft walls. The roofs over all enclosed elevators shall be made of fire-proof materials with skylights at least three-fourths the area of the shaft made of thin glass, set in iron frames with a wire netting underneath. When the elevator shaft does not extend to the ground the lower end shall be enclosed in fire-proof material. If the bureau shall so direct, the basement story of all elevator shafts now or hereafter constructed shall be enclosed in walls of brick or fire-proof material and openings therein for the cable drum shall be properly protected with an iron covering. This shall not be necessary if the elevator machinery in the basement is located in a room with fire-proof walls and ceiling. All dumb waiter shafts, except such as do not extend more than three stories above the cellar or basement in dwelling houses, shall be inclosed in suitable walls of brick or burnt clay blocks, set in iron frames of proper strength or fire-proof blocks strengthened with metal dowels, or four-by-four wood studs covered both sides with metal lath and plaster. Said walls or construction shall extend at least three feet above the roof and be covered with a skylight at least three-fourths the area of the shaft made with thin glass set in iron frames with a wire netting underneath. In all buildings hereafter erected, and in all existing buildings when the common council shall so direct, open grill work or wire mesh inclosures for passenger elevators shall be lined with wired glass fitted in metal frames when the stairways are adjacent to said shaft. Immediately under the sheaves at the top of every elevator shaft in any building, there shall be provided and placed a substantial grating or screen of iron or steel, of such construction as shall be approved by the bureau. The owner, lessee, or other person having control of any elevator shall cause to be fastened in a conspicuous place therein a metal plate bearing suitable raised letters which shall set forth the number of pounds weight which said elevator, after proper test, has capacity to carry; but not more than eighty per cent of the load as so stated shall be carried thereon.

§ 34. *Stairways*—In buildings of Class I, which are used as workships, or salesrooms in which there is an occupation at any time of one hundred or more persons, there shall be at least two staircases, each not less than three feet wide. If the number of persons so occupying such buildings exceeds three hundred then the width of the stairs in the same shall be increased to five feet. If the number of persons so occupying such premises exceeds eight hundred, three stairways five feet in width each, shall be constructed. If the number of persons so occupying such premises exceeds twelve hundred, they shall be governed as regards the number and size and construction of stairways by the regulations laid down for buildings of Class V. In all cases the stairs shall be located at as great a distance as practicable from each other, and in cases where the persons so occupying such buildings are not all on one floor, the widths and number of stairways are not all on one floor, the widths and number of stairways in the several stories shall be governed as above by the total number of persons who will at any time be employed on any floor. All persons above any given story shall be counted in addition to the persons on that story. The foregoing specifications as to stairs apply to non-fireproof buildings only. For fire proof buildings one less flight of stairs than set forth above shall be required in each case. It shall be unlawful under any circumstances to close up or obstruct the stairs, or the approaches leading thereto, in any building, and no change in the position or construction of stairs shall be made without permission from the bureau. The aggregate width of doors opening at the street level in buildings of Class I, shall be equal to the aggregate width of stairways hereinbefore specified, and such doors shall not be locked during business hours, or while such buildings are occupied.

§ 35. *Projections over building line and over and under sidewalks*—No part of any building shall project over the street line without special permission of the bureau and the commissioner of public works, and the sidewalk space shall not be used for, or occupied by, steps or open areas. The foregoing prohibition for the use of sidewalk space for steps or areas shall not apply to existing buildings, but if material alterations in, or additions to, existing buildings are to be made, then such steps and open areas shall be made to conform to this ordinance.

In all cases where the space under sidewalks is connected with the basement of any building the covering of the same, and all supports, shall be made entirely of incombustible material. Circular openings not to exceed twenty-four inches in diameter may be placed in the outer edge of sidewalks to receive coal, the outer edge of which openings shall be not more than eighteen inches from the inside edge of the curb, and they must have proper incombustible covering. No excavation shall be made outside any street line, nor shall any space or area be used under any sidewalk in connection with any building without special permission of the bureau and of the commissioner of public works, which permission shall not be granted until the owner of said building execute and file with the mayor a bond to the city of Rochester with sufficient sureties conditioned to save said city harmless from all loss or damage arising by reason of such excavation or the construction or use of such space or area. The owners of all existing areas encroaching on public streets shall give the bond herein required.

§ 36. *Frame construction*—A frame building may be raised for the purpose of erecting a basement story thereunder, but the principal floor shall not be raised to a higher level than six feet above the sidewalk for two-story buildings, or twelve feet high above the sidewalk for one-story frame buildings. The walls enclosing such basement shall be of masonry, and shall be not less than twelve inches thick if built of brick, and eighteen inches thick if of stone. The foundation of such walls is to be constructed of stone not less than eighteen inches thick. No frame building shall be raised for the purpose of constructing a basement to a greater height than given in this ordinance as the maximum height for frame buildings. After there has been a basement story constructed under any frame building, such building shall not be raised again for any purpose whatsoever. No frame dwelling shall be erected to contain more than two stories, not including basement and attic and in no case shall the first or principal floor of a frame dwelling be more than six feet above sidewalk grade. Frame buildings veneered on the outside, not to exceed two stories in height, exclusive of attic, with four inches of brick or stone, may be erected with the consent of the bureau, but such brick or stone work must be erected on a continuous foundation of masonry and must be properly anchored to the frame structure, and in all other respects they shall be treated as frame buildings. No single frame building shall be erected which shall contain accommodations for more than four families. Double buildings may be constructed to contain accommodations for more than four families, but each part of such buildings containing accommodations for four families shall be separated from the part on either side by a wall built of brick, or terra cotta hollow brick, extending from the basement up to the roof boards. All such partitions must be supported on a twelve-inch brick wall or eighteen-inch stone wall in the basement, which must be built from the cellar floor to the top of ground floor joist.

§ 37. *Mill construction*—Wooden ports used in buildings of mill construction shall not be of smaller sectional area than one hundred square inches, except the posts on top stories which should not be of smaller sectional area than sixty-four square inches. All elevator wells and stairways shall be entirely enclosed with incombustible materials, and all openings into the same provided with standard fire doors. If iron pillars, girders or beams are used in buildings of this class they shall be erected and protected as provided for fire-proof buildings; but the wooden posts, girders and joists need not be protected by fire-proof covering. The use of wood furring or wood laths shall not be permitted in buildings of this class. At each line of floor or roof beams, where cast iron columns are used, lateral connections between the ends of the beams and girders shall be made by passing wrought iron or steel straps across or through the cast iron columns in such manner as rigidly to connect the beams and girders with each other in the direction of their length; these straps shall be bolted through the wooden beams or girders. If wooden posts are used in mill construction they shall have metal caps of approved pattern, so constructed as to form a base for the next post above. The girders must be properly bolted to the cap and must have wrought iron straps on the outside in addition from one girder to the other, and bolted through each girder.

§ 38. *Skeleton construction*—Where columns are used to support iron or steel girders carrying inclosure walls, the said columns shall be of cast iron, wrought iron or rolled steel, and on their exposed outer and inner surfaces be constructed to resist fire by having a casing of brick work not less than four inches in thickness on the outer surfaces nor less than four inches in thickness on the inner surfaces and all bonded into the brick work of the inclosure walls. The exposed sides of the iron or steel girders shall be similarly covered in with brick work not less than four inches in thickness or concrete not less than two inches in thickness on the outer surfaces, tied and bonded, but the extreme outer edge of the flanges of beams, or plates or angles connected to the beams, may project to within two inches of the outside surface of the brick casing. The inside surfaces of girders may be similarly covered with brick work, or if projecting inside of the wall they shall be protected by terra cotta, concrete or other fire-proof material. Girders for the support of the enclosure walls shall be placed at the floor line of each story.

§ 39. *Steel and iron columns*—No part of a steel or wrought iron column shall be less than one-quarter of an inch thick. No wrought iron or rolled steel column shall have an unsupported length of more than forty times its least lateral dimension, without consent of the bureau. The ends of all columns shall be faced to a plane surface at right angles to the axis of the columns, and the connection between them shall be made with splice plates. The joint may be effected by rivets of sufficient size and number to transmit the entire stress, and then the splice plates shall be equal in sectional area to the area of the column spliced. When the section of the columns to be spliced is such that spliced plates cannot be used, a connection formed of plates and angles may be used designed properly to distribute the stress. No material, whether in the body of the column or used as lattice bar or stay-plate, shall be used in any wrought iron or steel column of less thickness than one-thirty-second of its unsupported width measured between centers of rivets transversely, or one-sixteenth the distance between centers of rivets in the direction of the stress. Stay plates are to have not les sthan four rivets, and are to be spaced so that the ratio of length by the least radius of gyration of the parts connected does not exceed forty; the distance between nearest rivets of two stay plates shall in this case be considered as length. Steel and wrought iron columns shall be made in one, two or three-story lengths, and the materials shall be rolled in one length wherever practicable to avoid intermediate splices. Where any part of the section of a column projects beyond that of the column below, the difference shall be made up by filling plates secured to column by the proper number of rivets. Shoes of iron or steel, as described for cast iron columns, or built shoes of plates and shapes may be used, complying with same requirements.

Cast iron columns shall have not less diameter than five inches or less thickness than three-quarters of an inch; nor shall they have an unsupported length of more than twenty times their least lateral dimensions or diameter, except they form part of an elevator enclosure or staircase, or unless the bureau may permit. All cast iron columns shall be of good workmanship and material. The top and bottom flanges, seats and lugs shall be of ample strength, reinforced by fillets and brackets; they shall be not less than one inch in thickness when finished. All columns must be faced at the ends to a true surface at right angles to the axis of the column. Column joints shall be secured by not less than four bolts each, not less than three-quarters of an inch in diameter. The holes for these bolts shall be drilled to a template. The core of a column below a joint shall be not larger than the core of the column above and the metal shall be tapered down for a distance of not less than six inches, or a joint plate may be inserted of sufficient strength to distribute the load. The thickness of metal shall be not less than one-twelfth the diameter or the greatest lateral dimension of cross section, but never less than three-quarters of an inch. Wherever the core of a cast iron column has shifted more than one-fourth the thickness of the shell, the strength shall be computed assuming the thickness of metal all around equal to the thinnest part, and the column shall be condemned if this computation shows the strength to be less than required by this ordinance. Wherever blowholes or imperfections are found in a cast iron column which reduces the area of the cross section at that point more than ten per cent such column shall be condemned. Cast iron posts or columns not cast with one open side or back, before being set up in place, shall have a three-eighths of an inch hole drilled in the shell of each column by the manufacturer or contractor furnishing the same, to exhibit the thickness of the castings; and any other similar sized hole or holes which the bureau may require shall be drilled in the said posts or columns by the said manufacturer or contractor at his own expense. Iron or steel shoes or plates shall be used under the bottom tier of columns properly to distribute the load on the foundation. Shoes shall be planed on top. Iron or steel posts or columns with one or more open sides and backs shall have solid iron plates on top of each, excepting where pierced for the passage of pipes.

§ 40. *Steel and iron girders and lintels*—Rivets in flanges shall be placed so that the least value of a rivet for either shear or bearing is equal or greater than the increment of strain due to the distance between adjoining rivets. All other rules given under riveting shall be followed. The length of rivets between heads shall be limited to four times the diameter. The compression flange of plate girders shall be secured against buckling if its length exceed thirty times its width. If splices are used, they shall fully make good the members spliced in either tension or compression. Stiffeners shall be provided over supports and under concentrated loads; they shall be of sufficient strength, as a column, to carry the loads, and shall be connected with a sufficient number of rivets to transmit the stresses into the web plate. Stiffeners shall fit so as to support the flanges of the girders. If the unsupported depth of the web plate exceeds sixty times its thickness stiffeners shall be used at intervals not exceeding one hundred and twenty times the thickness of the web. When rolled steel or wrought iron beams are used in pairs to form a girder, they shall be connected together by bolts and iron separators at intervals of not more than five feet. All beams twelve inches and over in depth shall have at least two bolts to each separator. Cast iron lintels shall not be used for spans exceeding sixteen feet. Cast iron lintels or beams shall not be less than three-quarters of an inch in thickness in any of their parts. When the lintels or girders are supported at the ends by brick walls or piers they shall rest upon cut Medina stone blocks at least ten inches thick, or upon cast iron plates of equal strength by the full size of the bearings. In case the opening is less than twelve feet, the stone blocks may be five inches in thickness, or cast iron plates of equal strength by the full size of the bearings. In case the opening is less than twelve feet, the stone blocks may be five inches in thickness, or cast iron plates of equal strength by the full size of the bearings, may be used, provided that in all cases the safe loads do not exceed those fixed by this ordinance.

§ 41. *Steel and iron beams*—All rolled steel and wrought iron floor and roof beams used in buildings shall be of full weight, straight and free from injurious defects. Holes for tie rods shall be placed as near the thrust of the arch as practicable. The distance between tie rods in floors shall not exceed eight feet, and shall not exceed eight times the depth of floor beams twelve inches and under. Channels or other shapes where used as skew-backs, shall have a sufficient resisting moment to take up the thrust of the arch. Bearing plates of stone or metal shall be used to reduce the pressure on the wall to the working stress. Beams joined on a girder shall have tie straps of one-half inch net sectional area, with rivets or bolts to correspond. Anchors shall be provided at the ends of all such beams bearing on walls. Under the ends of all iron or steel beams where they rest on walls, stone or cast iron plates shall be built into the walls, which plates shall be of such dimensions as to bring no greater pressure upon the brick work than that allowed by this ordinance. When rolled iron or steel floor beams, not exceeding six inches in depth, are placed not more than thirty inches on centers, no plates shall be required. All iron or steel trimmer beams, headers and tail beams, shall be suitably framed and connected together, and the iron or steel girders, columns, beams, trusses and all other iron work of all floors and roofs shall be strapped, bolted, anchored and connected together ,and to the walls. All beams framed into and supported by other beams or girders shall be connected thereto by angles or knees of a proper size and thickness, and have sufficient bolts or rivets in both legs of each connecting angle to transmit the entire weight or load coming on the beam to the supporting beam or girder. In no case shall the shearing value of the bolts or rivets or the bearing value of the connection angles, provided for in this ordinance, be exceeded.

§ 42. *Riveting steel and iron work*—The distance from center of a rivet hole to the edge of the material shall not be less than the following:

⅝	of an inch for	½	inch rivets
⅞	"	⅝	"
1⅛	"	¾	"
1⅜	"	⅞	"
1½	"	1	"

Wherever possible, however, the distance shall be equal to two diameters. All rivets, wherever practicable, shall be machine driven. The rivets in connection shall be proportioned and placed to suit the stresses. The pitch of rivets shall never be less than three diameters of the rivet, nor more than six inches. In the direction of the stress it shall not exceed sixteen times the least thickness of the outside member. At right angles to the stress it shall not exceed thirty-two times the least thickness of the outside member. All holes shall be punched accurately, so that upon assembling a cold rivet will enter the hole without straining the material by drifting. Occasional slight errors shall be corrected by reaming. The rivets shall fill the holes completely; the heads shall be hemispherical and concentric with the axis of the rivet. Gussets shall be provided wherever required, of sufficient thickness and size to accommodate the number of rivets necessary to make a connection.

§43. *Bolting steel and iron work*—Where riveting is not made mandatory connections may be effected by bolts. These bolts shall be of wrought iron or mild steel, and they shall have U. S. standard threads. The threads shall be full and clean, the nut shall be truly concentric with the bolt, and the thread shall be of sufficient length to allow the nut to be screwed up tightly. When bolts go through bevel flanges, bevel washers to match shall be used so that the head and nut of bolt are parallel. When bolts are used for suspenders, the working stresses shall be reduced for wrought iron to ten thousand pounds and for steel to fourteen thousand pounds per square inch of net area, and the load shall be transmitted into the head or nut by strong washers distributing the pressure evenly over the entire surface of the same. Turned bolts in reamed holes shall be deemed a substitute for field rivets.

§ 44. *Steel and iron trusses*—Trusses shall be of such design that the stresses in each member can be calculated. All trusses shall be held rigidly in position by efficient system of lateral and sway bracing, struts being spaced so that the maximum limit of length to least radius of gyration, established in this ordinance is not exceeded. Any member of a truss subjected to transverse stress, in addition to direct tension or compression shall have the stresses causing such strain added to the direct stresses coming on the member, and the total stresses thus formed shall in no case exceed the working stresses stated in this ordinance.

For tension members, the actual net area only after deducting rivet holes, one-eighth inch larger than the rivets, shall be considered as resisting the stress. If tension members are made of angle irons riveted through one flange only, that flange shall be considered in proportioning areas. If the axes of two adjoining web members do not intersect within the line of the cords, sufficient area shall be added to the cord to take up the bending strains. No bolts shall be used in the connections of riveted trusses, excepting when riveting is impracticable, and then the holes shall be drilled or reamed.

The bending stresses on pins shall be limited to twenty thousand pounds for steel and fifteen thousand pounds for iron. All compression members in pin-connected trusses shall be proportioned, using seventy-five per cent of the permissible working stress for columns. The heads of all eye-bars shall be made by upsetting or forging. No weld will be allowed in the body of the bar. Steel eye-bars shall be annealed. Bars shall be straight before boring. All pin-holes shall be bored true and at right angles to the axis of the members and must fit the pin within one-thirty-second of an inch. The distance of pin holes from center to center for corresponding members shall be alike, so that, when piled upon one another, pins will pass through both ends without forcing. Eyes and screws ends shall be so proportioned that upon test to destruction, fracture will take place in the body of the member. All pins shall be accurately turned. Pin-plates shall be provided wherever necessary to reduce the stresses on pins to the working stresses prescribed in this ordinance.

These pin-plates shall be connected to the members by rivets of sufficient size and number to transmit the stresses without exceeding working stresses. All rivets in members of pin-connected trusses shall be machine driven. All rivets in pins plates which are necessary to transmit stress shall be also machine driven. The main connections of members shall be made by pins. Other connections may be made by bolts. If there is a combination of riveted and pin-connected members in one truss, these members shall comply with the requirements for pin-connected trusses; but the riveting shall comply with the requirements of this ordinance. All structural metal work shall be cleansed of scale, dirt, and rust, and be thoroughly coated with one coat of paint.

§ 45. *Concrete construction*—When applying for a permit to build any concrete construction, the applicant shall submit to the bureau samples of all material, and the formula of the concrete mixture to be used. All concrete walls above the basement floor level and all concrete floors and fire-proofing within a building shall be made with standard brands of Portland cement, sand, and either of the following inerts: silica, gravel, broken stone, slag, brick, terra cotta or boiler cinders thoroughly screened. The following inerts shall be excluded in floor construction and fire-proofing except for concrete ballasting over floor construction: limestone, boiler cinders containing more than ten per cent of unconsumed carbon and soluble ashes, plaster of Paris, sulphate of lime, and all similar materials. The required thickness of all concrete walls or fire-proofing or floor construction is for the full thickness of the material only, exclusive of the plastering or floor ballasting. Portland brick made of sand and Portland cement of the same dimensions as common brick, may be substituted for common brick, if the bureau is satisfied that the use of such brick will in no way endanger the stability or safety of the wall according to its exposure. Artificial stone made of Portland cement and incombustible and fire-proof and water-proof materials may be used as a substitute for any natural stone, provided that in all cases the conditions of safety prescribed herein are compiled with, but no artificial stone containing more than fifteen per cent of lime or crushed limestone as an ingredient shall be used in a lintel, sill or bearing part in any building over five stories high. Portland building blocks with hollow spaces not exceeding one-third the width of the block and having an annulus of uniform thickness, and not exceeding nine inches high nor less than eight inches on the beds may be substituted for brick in all buildings of ordinary construction in which the thickness and heights of walls are as prescribed in this ordinance. No isolated supporting monolithic concrete pier shall be used in the exterior or interior of any building above the basement floor level. All concrete work shall be constructed along proper structural lines and when a section or panel of armored or reinforced concrete is started, it shall be finished in its entirety before shutting down for any purpose which will make necessary a delay of more than thirty minutes' duration. All unfinished and unsafe panels of sections shall be removed before starting a new one, and any remnants of materials, containing cement not used on the first set, shall be condemned and removed whether in the wall or floor or in the vicinity of the work. All centering shall be of self-supporting, and no center in concrete construction shall be struck until seven days after it is laid. All structural concrete exposed to, or worked in, the outer air, shall be worked when the temperature is above thirty-two degrees F. in the shade, and any concrete liable to be exposed to frost or snow before it has attained its permanent set shall be temporarily protected, and centers of such exposed concrete shall not be removed until the season has advanced beyond the probability of a frost or until the building is properly enclosed. When any concrete wall or armored or reinforced concrete is used in construction, the owner shall provide for expert inspection of the cement and supervision of the construction. A daily record shall be kept of the tests and the temperature in which the concrete was worked and a certified copy of such record shall be filed with the bureau at least once a week during the period of construction.

§ 46. *Fire escapes*—Outside iron stair fire escapes or inside fire stairways herein specified shall be constructed in or upon every building more than two stories in height, not having more than one means of egress, used as a hotel, tenement house, apartment house, lodging house, factory, mill, office building, hospital, asylum, school or public building. The number and location of such fire escapes and fire stairways shall be governed by the location of the building, its style of construction, size, constructed means of egress, number of inmates and the purposes for which used. When inside fire stairways are adopted, they shall be constructed entirely of fire-proof material enclosed with walls and shall connect wtih a passageway leading directly to the street, without any connection whatever with the basement. They shall have standard fire doors, self-closing, at every landing, which doors must never be blocked or fastened. When outside fire escapes are adopted they shall consist of open iron stairways of not more than forty-five degrees slant with steps not less than six inches in width, and twenty-four inches in length, and protected by a well secured hand rail on both sides. They shall be connected with each floor above the first, well fastened and of sufficient strength, and shall have landings or balconies not less than six feet in length and three feet in width guarded by iron railings not less than three feet in height, and embracing at least two windows at each story, connected with the interior by easily accessible and unobstructed openings. The windows or doors to each fire escape shall be located as far as possible, consistent with accessibility, from the stairways and elevator hatchways or openings, and the ladders thereof shall extend to the roof. Drop stairs shall reach from the lowest platform to the ground, and shall be hinged and hung with a counter-weight suspended to chain or cable with the said weight entirely enclosed in an iron pocket, in which it shall move freely up and down; and the weights of all fire escapes now existing shall be enclosed in such iron pockets. Any other plan of outside iron stair fire escape, substantially as above required, shall be sufficient if approved by the bureau. Fire escapes shall be kept painted and in good repair, and no person shall place any incumbrance whatsoever before or thereon. If any person shall neglect or refuse for thirty days after notice in writing from the bureau to construct such outside iron stair fire escapes or inside fire stairways as this ordinance requires and the bureau shall direct, said bureau may cause such fire escapes or stairways to be constructed, and the expense thereof, and ten per cent in addition, shall be collected from such person by an action brought by the corporation counsel in the name of the city of Rochester, and this shall be in addition to the other penalties provided in this ordinance. The owners of all buildings mentioned in this section shall have scuttles on the roofs, and shall cause to be constructed and maintained stationary iron stairs or ladders leading to said scuttles, which scuttles and stairs shall be kept ready for use at all times.

NOTE—Rope fire escapes must be provided in hotels and be inspected semi-annually—Domestic Commerce Law, § 40; a misdemeanor to violate provisions as to hotels—Penal Code, § 447b; iron stair fire escapes must be constructed on factories—Labor Law, §§ 82, 83; on hospitals and asylums—L. 1895, Ch. 381; duty as to fire escapes—Pauley vs. Steam Guage and Lantern Co., 131 N. Y. 90; Dept. of Bldg. of New York vs. Field, 12 App. Div. 258. See article "Fire Escapes," Am. and Eng Enc. Law, 2d Edn., Vol. 13, p. 82.

§ 47. *Furnaces, boilers and flues*—In all cases where hot water, steam, hot air, or other furnaces are used, the furnace smoke pipe shall be at least two feet below the joists or ceiling above the same unles said joists or ceiling shal lbe properly protected by a shield or metal plate suspended above the said pipe, with at least three inches space for the free circulation of air above and below the said shield, in which case the smoke pipes shall be kept at least ten inches from the joists or ceiling and the tops of all furnaces set in brick must be covered with brick, slate or metal, supported by iron bars, and so constructed as to be perfectly tight; said covering to be in addition to, and at least six inches from, the ordinary covering to the hot air chamber. The tops of all heating furnaces not set in brick shall be at least ten inches below the joists or ceiling, with a shield or metal plate made tight and suspended below the said joists or ceiling at least one inch, and extending one foot beyond the furnace on all sides, and the top of said furnace shall be protected with at least three inches of sand. No boiler to be used for steam or motive power and no furnace shall be placed on any wood floor unless the same is set on non-combustible beams and arches, or an incombustible platform, and in no case without a permit from the bureau. In no case shall tin or sheet iron pipes for gas stoves or gas grates be allowed in wood partitions.

§ 48. *Fire doors*—All fire doors required herein shall be constructed in accordance with the regulations of the bureau, which regulations as far as practicable shall conform to the specifications of the Underwriters' Association of New York State.

§ 49. *Stoves and ranges*—Where stoves or ranges are set upon combustible floors, except in dwelling houses, they shall be so set as to leave an air space between them and the floor, and the floor shall be protected by sheet metal. All brick set or large portable ranges shall be placed on hearths of brick, slate or cement, the said hearths to extend at least twelve inches beyond the face of the range. No brick set portable range, or heating apparatus of ayn kind shall be set against a wood or lath and plaster partition.

§ 50. *Ash boxes and pits*—All receptacles for ashes shall be of galvanized iron, brick or other incombustible material. When the ash pit is located in a basement or cellar it shall have brick walls at least one brick in thickness, and if the floor over the same is wood, such pit shall be covered over with either brick arching, stone or concrete not less than four inches thick with four inches of air space between the covering of pit and the ceiling except for pits built directly under the trimmer arches of hearths. No person shall store ashes on a wooden floor or in close proximity to any wood work whatever.

§ 51. *Drying rooms*—All walls, cealings and partitions, enclosing drying rooms in laundries, dye houses or factories, when not made of fire-proof material, shall be wire lathed and plastered, or covered with metal, tile or other incombustible material.

§ 52. *Bake ovens*—Bake ovens shall rest on solid foundations or metal beams; the sides and ends shall be at least two feet from any wood work, and the crown or arch at least four feet from ceilings that have wood joists. The hearth in front of all bake ovens shall extend at least three and one-half feet beyond the face thereof.

§ 53. *Smoke houses*—Smoke houses shall be constructed throughout of incombustible materials, and shall be provided with ventilators at or near the top, and with guards not less than four feet above the fire bed, sufficient to prevent the meats from falling into the fire. If such smoke houses open into other buildings, such openings shall be protected by iron doors or shutters, properly and thoroughly constructed.

§ 54. *Shaving pits*—Shaving pits in all factories where wood working machinery is used shall be constructed of brick, stone or other incombustible material, and shall be separated from the boiler room by standard fire doors. All such factories shall have metal chutes leading to said shaving pits from each wood working machine.

§ 55. *Stand pipes*—All factories, office buildings, hotels, apartment houses and tenements over four stories in height and all buildings exceeding eighty feet in height shall have either inside or outside a metalic stand-pipe, four inches in diameter or larger, extending to and above the roof so arranged that engine hose can be attached to the same from the street and shall have one Siamese automatic valve within five feet from street grade, and one hose valve at each floor above the first and on the roof. All hose couplings thereon shall conform to the size and pattern adopted by the fire department.

§ 56. *Tanks*—Tanks containing more than five hundred gallons of water or other fluid placed on or above the roof or in any story of any building shall be supported on beams of sufficient strength to safely carry the same; and the beams shall rest at both ends on brick walls, iron or steel girders, columns, or piers of masonry. Underneath any such tank, or on the side nearest the bottom, there shal lbe a short pipe, not less than four inches in diameter, fitted with a suitable valve having a lever or wheel handle, so that firemen or others can readily discharge the weight of the fluid contents from the tank, in case of necessity. Such tanks shall be placed where practicable at one corner of a building and shall not be placed over or near a line of stairs, and wooden covers thereon shall be covered with tin. All such tanks shall be inspected by the bureau at least once annually.

§ 57. *Basement exits*—In buildings used as stores, or buildings of any kind in which people assemble in the basement, there shall be provided safe means of egress from the basement leading directly to the street, the proper location of such places of egress to be determined by the bureau.

§ 58. *General protection against fire and accident*—In all hotels, churches, theaters, restaurants, railroad depots, public buildings, department stores and other business and manufacturing buildings, where large numbers of people are congregated, the halls, doors, stairways, seats, passageways and aisles, and all ighting and heating appliances and apparatus shall be arranged as the bureau shall direct to facilitate egress in cases of fire or accident, and to afford the requisite and proper accommodation for the public protection in such cases. All aisles and passageways in said buildings shall be kept free from chairs and other obstructions, and no person shall be allowed to stand in or occupy any aisles or passageways of any theater, church or public building during any performance or public assemblage. The commissioner, or any duly authorized employee of the bureau, may at any time serve a written notice upon the owner, lessee or manager of any of said buildings, directing any act or thing to be done, in or about said buildings and the several appliances therewith connected, such as halls, doors, stairs, windows, seats, aisles, fire walls, fire apparatus and fire escapes, as he may deem necessary to protect the public and to compel obedience to law.

§ 59. *Wood fences*—No wood fence upon the line of any public street shall be constructed of greater height than seven feet above the sidewalk grade, or. seven feet above the surface of the ground, where no grade is established.

§60. *Dangerous structures*—Every building or part thereof which shall appear to the bureau to be specially dangerous, by reason of bad condition of walls, overloaded floors, defective construction, lack of guards against fire, or other causes, shall be held to be unsafe; and the commissioner, or any duly authorized employee of the bureau, immediately shall notify the owner or lessee to cause the same to be repaired, and shall also affix a notice of the dangerous character of the structure in a conspicuous place on the exterior wall of such building, and no person shall remove or deface such notice so affixed. The owner or party having an interest in such unsafe building or structure being notified thereof in writing by the bureau immediately shall cause the same to be made safe and secure, and if any such building shall be used for any purpose requiring a license therefor, the mayor may revoke said license on neglect of the owner to comply with the notice served as herein provided. Where the public safety requires immediate action, the commissioner or any duly authorized employee of the bureau, may enter upon the premises, with such assistance as may be necessary, and cause the said structure to be made secure or taken down without delay, at the expense of such owner or party interested.

§ 61. *Structures in violation of law*—Every structure or part thereof erected or placed contrary to the provisions of this ordinance shall be deemed to be a common nuisance, and the bureau may order the same removed; and in case the owner thereof shall neglect or refus to remove such structure or part thereof, within five days after notice so to do, the bureau may remove such structure or part thereof at the expenes of the owner.

§ 62. *Change of use*—No change shall be made in the use or occupation of any existing building which will transfer it from one class as defined herein to another without the permission of the bureau, and until said building has been reconstructed and modified to conform to the provisions of this ordinance.

§ 63. *Construction of theaters*—Every theater, opera house, convention hall, or other building intended to be used for public entertainment or assemblage hereafter erected, for the accommodation of more than three hundred persons, shall be built to comply with the requirements of this action. No building which, at the time of the passage of this ordinance, is not in actual use for the above named purposes, shall be so used until made to conform to the requirements of this action. No building shall be opened to the public for theatrical or operatic purposes or for public entertainments of any kind until the bureau shall have approved the same.

OPEN COURT AND CORRIDORS—Every such building shall have at least one front on the street, and in such front there shall be suitable means of entrance and exit for the audience. In addition to the aforesaid entrances and exits on the street, there shall be reserved for service in case of an emergency, an open court or space on the side not bordering on the street where said building is located on a corner lot, and on both sides of said building where there is but one frontage on the street. The width of such open court or courts shall be not less than seven feet where the seating capacity is not over one thousand people, above one thousand and not more than eighteen hundred people, eight feet in width, and above eighteen hundred people, ten feet in width. Said open court or courts shall begin on a line with or near the proscenium wall and shall extend the length of the auditorium proper, to or near the wall separating the same from the entrance vestibule. A separate and distinct corridor shall continue to the street from each open court through such superstructure as may be built on the street side of the auditorium, with continuous walls of brick or fire-proof materials on each side of the entire length of said corridor or corridors, and the ceiling and floors shall be fire-proof. Said corridor or corridors shall not be reduced in width to more than three feet less than the width of the open court or courts, and there shall be no projection in the same; the outer openings to be provided with doors or gates opening toward the street. During the performance the doors in the corridors shall be kept open by proper fastenings; at other times they may be closed and fastened by movable bolts or locks. The said open courts and corridors shall not be used for storage purposes or for any purpose whatsoever, except for exit and entrance from and to the auditorium and stage, and must be kept free and clear during performances. The level of said corridors at the front entrance of the building shall not be greater than one step above the level of the sidewalk where they begin at the street entrance. The main entrance of the building shall not be on higher level from the sidewalk than the height of four steps. To overcome any difference of level in and between courts, corridors, lobbies, passages and aisles on the ground floor, gradients shall be employed of not over one foot in twelve feet with no perpendicular rises. From the auditorium opening into the said open courts or on the side street, there shall not be less than two exits on each side in each tier from and including the paraquet and each and every gallery.

STAIRWAYS FROM BALCONY EXTS—There shall be balconies not less than four feet in width in the said open court or courts at each level or tier above the parquet, on each side of the auditorium, of sufficient length to embrace the two exits and from said balconies there shall be staircases extending to the ground level, with a rise of not over eight and one-half inches to a step, and not less than nine inches tread exclusive of the nosing. The staircase from the upper balcony to the next below shall be not less than thirty-six inches in width in the clear, and from the first balcony to the ground three feet in width in the clear where the seating capacity of the auditorium is for one thousand people or less, three feet and six inches in the clear where above one thousand and not more than eighteen hundred people, and four feet in the clear where above eighteen hundred people and not more than twenty-five hundred people, and not over four feet six inches in the clear where above twenty-five hundred people. All the said balconies and staircases shall be constructed of iron throughout, including the floors, and of ample strength to sustain the load to be carried by them, and they shall be covered with a metal hood or awning, to be constructed in such manner as shall be approved by the bureau. Where one side of the building borders on the street, there shall be balconies and staircases of like capacity and kind, as before mentioned, carried to the ground. When located on a corner lot that portion of the premises bordering on the side street, and not required for the uses of the theater, if such portion be not more than twenty-five feet in width, may be used for offices, stores or apartments, provided the walls separating this portion from the theater proper are carried up solidly to and through the roof, and that a fire-proof exit is provided for the theater, on each tier, equal to the combined width of exits opening on opposite sides in each tier, communicating with balconies and staircases leading to the street in manner provided elsewhere in this section; said exit passages shall be entirely cut off by brick walls from said offices, stores or apartments, and the floors and ceilings in each tier shall be fire-proof.

BUILDINGS USED AS THEATERS NOT TO BE USED AS HOTELS, ETC.—No workshop, storage or general property room shall be allowed above the auditorium or stage, or under the same, or in any of the fly galleries. All of said rooms or shops may be located in the rear or at the side of the stage, but in such cases they shall be separated from the stage by a brick wall, and the openings leading into said portions shall have fire-proof doors on each side of the openings, hung to iron eyes built into the wall. No portion of any building hereafter erected or altered, used or intended to be used for theatrical purposes, shall be occupied or used as a hotel, boarding or lodging house, workshop or manufactory, or for storage purposes except as herein provided. Said restriction relates not only to that portion of the buildings which contains the auditorium and the stage, but applies also to the entire structure in conjunction therewith. No store or room contained in the building, or the offices, stores or apartments adjoining as aforesaid shal lbe let or used for carrying on any business dealing in articles designated as specially hazardous in the classification of the Underwriters' Association of New York State, or for manufacturing purposes. No lodging accommodations shall be allowed in any part of the building communicating with the auditorium. Interior walls built of fire-proof materials shall separate the auditorium from the entrance vestibule and from any room over the same, also from any lobbies, corridors, refreshment or other rooms.

FIRE-PROOF STAIRWAYS, ETC.—All staircases for the use of the audience shall be enclosed with walls of brick, or fire-proof materials approved by the bureau, in the stories through which they pass, and the openings to said staircases from each tier shall be the full width of each staircase. No door shall open immediately upon a flight of stairs, but a landing at least the width of the door shall be provided between such stairs and such door. A fire wall, built of brick, shall separate the auditorium from the stage, and the same shall extend at least four feet above the stage roof, or the auditorium roof, if the latter be the higher, and shall be coped. Above the proscenium opening there shall be an iron girder of sufficient strength to safely support the load above, and the same shall be covered with fire-prof materials to protect it from the heat. Should there be constructed an orchestra over the stage, above the proscenium opening, the said orchestra shall be placed on the auditorium side of the proscenium fire wall and shall be entered only from the auditorium side of said wall. The moulded frame around the proscenium opening shall be formed entirely of fire-proof materials; if metal be used, it shall be fileld in solid with non-combustible material and securely anchored to the wall with iron.

Asbestos curtain—The proscenium opening shall be provided with a fire-proof metal curtain, or a curtain of asbestos, interwoven or reinforced by wire netting or otherwise strengthened, or other fire-proof material approved by the bureau, sliding at each end within iron grooves, securely fastened to the brick wall, and extending into such grooves, to a depth of not less than six inches on each side of the opening; said curtain shal ldrop through the stage floor at least four inches deep into a groove in the fire wall herein required, and said groove and floor shall be protected by a sheet metal covering which shall extend at least six inches up stage. Said fire-proof curtain shall be raised at the commencement and lowered at the close of each performance, and shall be operated by such machinery and provided with such appliances to force said curtain down in case of emergency as the bureau may approve. The proscenium curtains shall be placed at least three feet distant from the footlights at the nearest point.

Openings through proscenium wall—No doorway or opening through the proscenium wall, from the auditorium, shal lbe allowed above the level of the first floor, and such first floor openings shall have standard fire doors on each face of the wall, and the doors shall be hung so as to be opened from either side at all times.

Skylights over stage—There shall be provided over the stage; metal skylights of an area or combined area of at least one-eighth the area of said stage, fitted up with sliding or hinged sash, fitted with thin glass, with wire netting underneath, each pane measuring not less than three hundred square inches, the whole of said skylight to be so constructed as to open instantly on the cutting or burning of a hempen cord, by which said skylight is held closed, or some other device approved by the bureau. All that portion of the stage not comprised in the working of scenery, traps and other mechanical apparatus, for the presentation of a scene, usually equal to the width of the proscenium opening shall be built of iron or steel beams filled in between with fire-proof material, and all girders for the support of said beams shall be of wrought iron or rolled steel.

Fly galleries and rigging loft—The fly galleries entire, including pin rails, shall be constructed of iron or steel, and the floors of said galleries shall be composed of iron or steel beams, filled with fire-proof materials, and no wood board or sleepers shall be used as covering over beams, but the said floors shall be entirely fire-proof. The rigging loft shall be fire-proof.

Fire-proof paint—All stage scenery, curtains and decorations made of combustible material, and all woodwork on or about the stage, shall be painted or saturated with some noncombustible material, or otherwise rendered safe against fire, and the finishing coats of paint applied to all woodwork throughout the entire building shall be of such a kind as will resist fire to the satisfaction of the bureau.

ROOF, ETC., TO BE FIRE-PROOF—The roof over the auditorium and the entire main floor of the auditorium and vestibule, also the entire floor of the second story of the front superstructure over the entrance, lobby and corridors, and all galleries and supports for the same in the auditorium shall be constructed of iron or steel and fire-proof materials, not excluding the use of wood floor boards and necessary sleepers to fasten the same to, but such sleepers shall not mean timbers of support and the space between the sleepers, except the portion under the stepping galleries, which shall be properly fire-stopped, shall be solidly filled with incombustible material up to the under side of the floor boards. The fronts of each gallery shall be formed of fire-proof materials, except the capping, which may be made of wood. The ceiling under each gallery shall be constructed entirely of fire-proof materials. The ceiling of the auditorium shall be formed of fire-proof materials. All lathing, whenever used, shall be of wire or other metal. The partitions in that portion of the building which contains the auditorium, the entrance and vestibule and every room and passage devoted to the use of the audience, shall be constructed of fire-proof materials, including the furring of outside or other walls. None of the walls or ceilings shall be covered with wood sheathing, canvas or any combustible material. But this shall not exclude the use of wood wainscoting to a height not to exceed six feet, which shall be filled in solid between the wainscoting and the wall with fire-proof materials.

DRESSING ROOMS—The walls separating the actors' dressing rooms from the stage, and the partitions dividing the dressing rooms, together with the partitions of every pasasgeway from the same to the stage, and all other partitions on or about the stage, shall be constructed of fire-proof material approved by the bureau. All doors in any of said partitions shall be fire-proof. All shelving and cupboards in each and every dressing room, property or other storage rooms, shall be constructed of metal, slate or some fire-proof material. Dressing rooms may be placed in the fly galleries, provided that proper exits are secured therefrom to the fire escapes in the open courts and that the partitions and other matters pertaining to dressing rooms shall conform to the requirements herein contained, but the stairs leading to the same shall be fire-proof. All dressing rooms shall have an independent exit leading directly into a court or street, and shall be ventilated by windows in the external wall; and no dressing room shall be more than one story below street level.

WINDOWS AND SEATS—All windows shall be arranged to open, and none of the windows in outside walls shall have fixed sashes, iron grills or bars. All seats in the auditorium, excepting those contained in boxes, shall be not less than thirty-two inches from back to back, measured in a horizontal direction, and firmly secured to the floor. No seat in the auditorium shall have more than six seats intervening between it and an aisle on either side. All platforms in galleries formed to receive the seats shall not be more than twenty-one inches in height of riser, nor less than thirty-two inches in width of platform.

AISLES—All aisles on the respective floors in the auditorium, having seats on both sides of same, shall be not less than three feet wide where they begin, and shall be increased in width toward the exits in the ratio of one and one-half inches to five running feet. Aisles having seats on one side only, shall be not less than two feet wide at their beginning and increased in width the same as aisles having seats on both sides.

LOBBIES AND CORRIDORS—The aggregate capacity of the foyers, lobbies, corridors, passages and rooms for the use of the audience, not including aisle space between seats, shall, on each floor or gallery, be sufficient to contain the entire number to be accommodated on said floor or gallery, in the ratio of one hundred and fifty superficial feet of floor room for every one hundred persons.

GRADIENTS—Gradients or inclined planes shall be employed instead of steps where possible to overcome slight difference of level in or between aisles, corridors and passages.

EXITS AND DOORWAYS—Every theater accommodating three hundred persons shall have at least two exits, and when accommodating five hundred persons, at least three exits, these exits not referring to or including the exits to the open court at the side of the theater. Doorways of exit or entrance for the use of the public shall be not less than five feet in width, and for every additional one hundred persons or portions thereof, to be accommodated, in excess of five hundred, an aggregate of twenty inches additional exit width must be allowed. All doors of exit or entrance shall open outwardly and be hung to swing in such a manner as not to become an obstruction in a passage or corridor, and no such doors shall be closed and locked during any representation, or when the building is open to the public. Distinct and separate places of exit and entrance shal lbe provided for each gallery above the first. A common place of exit and entrance may serve for the main floor of the auditorium and the first gallery, provided its capacity be equal to the aggregate capacity of the outlets from the main floor and the said gallery.

PASSAGES, STAIRCASES AND STAIRS—No passage leading to any stairway communicating with any entrance or exit shall be less than four feet in width in any part thereof. All stairs within the building shall be constructed of fire-proof material throughout. Stairs from balconies and galleries shall not communicate with the basement or cellar. All stairs shall have treads of uniform width and risers of uniform height throughout in each flight. Stairways serving for the exit of fifty people shall be at least four feet wide, between railings, and for every additional fifty people to be accommodated six inches must be added to their width. The width of all stairs shall be measured in the clear between hand rails. In no case shall the risers of any stairs exceed seven and a half inches in height, nor shall the treads exclusive of nosing be less than ten and one-half inches wide in straight stairs. No circular or winding stairs for the use of the public shall be permitted. Where the seating capacity is for more than one thousand people, there shall be at least two independent staircases, with direct exterior outlets, provided for each gallery in the auditorium, where there are not more than two galleries, and the same shall be located on opposite sides of said galleries. Where there are more than two galleries one or more additional staircases shall be provided, the outlets from which shall communicate directly with the principle exit or other exterior outlets. All said staircases shall be of width proportionate to the seating capacity as elsewhere herein prescribed. Where the seating capacity is for one thousand people, or less, two direct lines of staircases only shall be required, located on opposite sides of the galleries, and in both cases shall extend from the sidewalk level to the upper gallery, with outlets from each gallery to each of said staircases. At least two independent staircases, with direct exterior outlets, shall be provided also for the service of the stage, and shall be located on the opposite sides of the same. All inside stairways leading to the upper galleries of the auditorium shall be enclosed on both sides with walls of fire-proof materials. Stairs leading to the first or lower gallery may be left open on one side, in which case they shall be constructed as herein provided for similar stairs leading from the entrance hall to the main floor of the auditorium. But in no case shall stairs leading to any gallery be left open on both sides. When straight stairs return directly on themselves a landing of the full width of both flights, without any steps, shall be provided. The outer line of landings shall be curved to a radius of not less than two feet, to avoid square angles. Stairs turning at an angle shall have a proper landing without winders introduced at said turn. In stairs, when two flights connect with one main flight, no winders shall be introduced, and the width of the main flight shall be at least equal to the aggregate width of the side flights. All stairs shall have proper landings introduced at convenient distances. All enclosed staircases shall have, on both sides, strong hand rails firmly secured to the wall about three inches distant therefrom and about three feet above the stairs, but said hand rails shall not run on level platforms and landings where the same is more in length than the width of the stairs. All staircases eight feet and over in width shall be provided with a center hand rail of metal, not less than two inches in diameter, placed at a height of about three feet above the center of the treads, and supported on wrought metal or brass standards of sufficient strength, placed not nearer than four feet nor more than six feet apart, and securely bolted to the treads or risers of stairs, or both, and at the head of each flight of stairs, on each landang, the post or standard shall be at least six feet in height, to which the rail shall be secured.

Heating apparatus—Every steam boiler which may be required for heating or other purposes shall be located outside of the building, and the space allotted to the same shall be enclosed by walls of masonry on all sides, and the cealing of such space shall be constructed of fire-proof materials. All doorways in said walls shall have fire-proof doors. No floor register for heating shall be permitted. No coil or radiator shall be placed in any passageway used as an exit; but all said coils and radiators shall be placed in recesses formed in the wall or partition to receive the same. All supply, return or exhaust pipes shall be properly incased and protected where passing through floors or near woodwork.

Stand-pipes and sprinklers—Stand-pipes four inches in diameter shall be provided with hose attachments on every floor and gallery as follows: One on each side of the auditorium in each tier, also on each side of the stage in each tier and at least one in the property room and one in the carpenter's shop, if the same be contiguous to the building. Said stand-pipes shall be separate and distinct, receiving their supply of water directly from the Holley power pumps, and shall be fitted with the regulation couplings of the fire department, and shall be kept constantly filled with water by means of said automatic power pump or pumps of sufficient capacity to supply all the lines of hose when operated simultaneously; or said stand-pipes may be supplied by engines from the Hemlock street mains in addition to the Holley system, and shall be kept clear of obstruction and ready for immediate use at all times during a performance in said building. A separate and distinct system of automatic sprinklers, approved by the bureau, supplied with water from the stand-pipes, shall be placed each side of the proscenium opening and on the ceiling or roof over the stage at such intervals as will protect every square foot of stage surface when said sprinklers are in operation. Automatic sprinklers shall also be placed, wherever practicable, in the dressing rooms, under the stage, and in the carpenter shop, paint rooms, store rooms and property rooms. A proper and sufficient quantity of two and one-half inch hose not less than one hundred feet in length, fitted with the regulation couplings of the fire department and with nozzles attached thereto, and with hose spanners at each outlet, shall always be kept attached to each hose attachment. There shall also be kept in immediate readiness for use on the stage, at least four casks full of water and two buckets to each cask. Said casks and buckets shall be painted red. There shall also be provided hand pumps or other portable fire extinguishing apparatus and at least four axes, and two twenty-five feet hooks, two fifteen feet hooks and two ten feet hooks on each tier or floor of the stage.

LIGHTS—Every portion of the building devoted to the uses or accommodation of the public, also all outlets leading to the streets, and including the open courts and corridors, shall be well and properly lighted during every performance, and the same shall remain lighted until the entire audience has left the premises. All gas or electric lights in the halls, corridors, lobby or any other part of said buildings used by the audience, except the auditorium, must be controlled by a separate shut-off, located in the lobby and controlled only in that particular place. Gas mains supplying the building shall have independent connections for the auditorium and the stage, and provision shall be made for shutting off the gas from the outside of the building. When interior gas lights are not lighted by electric spark, other suitable appliances to be approved by the bureau shall be provided. All suspended or bracket lights surrounded by glass, in the auditorium or any part of the building devoted to the public, shall be provided with proper wire netting underneath. No gas or electric light shall be inserted in the walls, wood work, ceilings, or in any part of the building unless protected by fire-proof materials. All lights in passages and corridors in said buildings, and wherever deemed necessary by the bureau, shall be protected with proper wire network. The foot lights, in addition to the wire network, shall be protected with a strong wire guard and chain, placed not less than two feet distant from said foot lights, and the trough containing said foot lights shall be formed of and surrounded by fire-proof materials. All border lights shall be constructed according to the best known methods subject to the approval of the bureau, and shall be suspended for ten feet by wire rope. All ducts or shafts for conducting heated air from the main chandelier, or from any other light or lights, shall be constructed of metal and made double, with an air space between. All stage lights shall have strong metal wire guards or screens, not less than ten inches in diameter, so constructed that any material in contact therewith shall be out of reach of the flames of said stage lights, and must be soldered to the fixtures in all cases. The stand-pipes, gas pipes, electric wires, hose, foot lights and all apparatus for the extinguishing of fire or guarding against the same, as in this section specified, shall be under control of the bureau.

DIAGRAM ON PROGRAM—A diagram or plan of each tier, gallery or floor, showing distinctly the exits therefrom, each occupying a space not less than fifteen square inches, shall be printed in black lines in a legible manner on the program of every performance. Over every exit on the inside shall be the word "EXIT" painted in legible letters not less than eight inches high.

PILOT LIGHTS—Over all exits must be provided a small red light which shall be kept burning during each performance and shall be controlled by a circuit separate from the other lights of the house.

FIREMAN ON DUTY AT PERFORMANCES—The commissioner shall assign to every theater one or more firemen for duty at each public performance. They shall report to the commissioner all violations of law relating to the construction or management of theaters the existence of which involve danger to the public.

ARTICLE III.

PROVISIONS AS TO COMBUSTIBLES AND EXPLOSIVES

§ 64. *Permission required for manufacture or sale*—No fireworks, gunpowder, nitroglycerine, dynamite or other explosive compounds or mixtures as defined herein, nor any kerocene, gasoline, naphtha or other product of petroleum used for heat, light or power shall be stored, manufactured or kept on sale without the permission of the bureau and in accordance with the terms of this ordinance.

No person shall transport any of the materials mentioned in this section through any public street, unless securely covered and protected so as to prevent accident.

NOTE—*Keeping gunpowder in violation of law is a misdemeanor and civil action for damages follows*—Penal Code, § 389. *Duty of building bureau to make inspections and report violations as to oils and naphtha*—Domestic Commerce Law, § 25. *Common council may pass ordinances for enforcement of act relating to storage of oils, id.*, § 27.

§ 65. *Application for permit*—Before any person shall manufacture, store or place on sale any of the materials mentioned in section sixty-four of this ordinance he shall make application at the office of the bureau for a permit for that purpose, furnishing a written statement giving the name of the applicant, the location of the premises concerned in the application, the kind of building thereon, the business there conducted, and a description of the nature and quantity of the said materials the applicant desires to manufacture or sell.

§ 66. *Granting permits; revocation*—If it shall appear from the said application that the ordinaces of the city are, and will be, complied with, a permit may be granted by the bureau authorizing the storing, manufacturing or sale of any of the materials mentioned in section sixty-four. Each permit shall be numbered and contain the name and address of the licensee, the date of granting the permission, the time when the same shall expire, together with a description of the premises to which the privileges of the permit shall be restricted. A correct record shall be kept of all permits issued. The bureau shall have full power to revoke and cancel any permit granted in case the person to whom the same is issued fails to comply with the provisions of this ordinance. Such permit shall not remain in force over one year from date and shall not be transferred without consent of the bureau.

§ 67. *Regulations as to explosives*—Fireworks, gun-powder or other explosive compound or mixtures shall not be stored, manufactured or kept on sale in any building used as a hotel, lodging house or dwelling, nor where are sold cigars, cigarettes, paints, oils or easily combustible materials. No smoking shall be allowed on such premises; the use of safety matches only shall be permitted; and nothing shall be used for illumination except gas or electric lights, which shall be protected by glass or wire coverings. Magazines for the storage of explosive compounds or mixtures shall be constructed and maintained of such style as the bureau shall direct, and shall in every case be labelled in conspicuous letters with the name of the of the contents followed by the word "danger." Any orders of the commissioner or any duly authorized employee of the bureau in regard to the storing, manufacture or sale of explosive compounds or mixtures shall be obeyed promptly or the bureau may adopt such measures as it may deem necessary to insure public safety.

§ 68. *Regulations as to combustibles*—Crude petroleum or any of its products shall not be kept on sale or stored in any place or building in any manner, nor of any other tests or standards than as provided by the Domestic Commerce Law, and the bureau is hereby directed to enforce the provisions of said law.

NOTE—Regulations as to the storage, tests and standards of the products of petroleum—Domestic Commerce Law, §§ 22-25.

ARTICLE IV.

PENALTIES AND REPEALS

§ 69. *Penalties*—A violation of this ordinance shall be punishable by a fine not exceeding one hundred fifty dollars, or by imprisonment not exceeding one hundred fifty days, or by both such fine and imprisonment, or by a penalty not less than five dollars nor more than five hundred dollars, to be recovered by the city of Rochester in a civil action. (*As amended June* 13, 1905; *which amendment was made necessary by L.* 1905, *Ch.* 191, § 3.)

§ 70. *Repeals*—All ordinances and parts of ordinances inconsistent herewith are hereby repealed. The following ordinances and all amendments thereto are hereby specifically repealed:

An ordinance relating to buildings, passed May 11, 1897.

An ordinance supplemental to the ordinance relating to buildings, passed January 12, 1904.

An ordinance relating to explosives, passed May 11, 1897.

An ordinance relating to the storage of combustibles, such as crude petroleum, naphtha, gasoline and benzine, passed January 26, 1901.

§ 71. *When in effect*—This ordinance shall take effect October 1, 1904.

PROVISIONS OF OTHER ORDINANCES IN RELATION TO BUILDINGS

ORDINANCE IN RELATION TO PUBLIC SAFETY AND GOOD ORDER, § 37

Subdivision (b). BUILDING MATERIALS IN STREETS—No person shall place any building materials upon any public street without a permit in writing from the commisisoner of public works, which permit may be revoked without notice. Such permit shall not be for a longer period than three months, nor authorize the obstruction of more than one-third of the sidewalk nor more than one-half of the carriageway, nor the placing of materials nearer than two feet to any street railroad track. Any person to whom such permit is granted shall cause all said materials to be enclosed with guards sufficient to secure public safety, and at all times during the night shall keep lighted lamps upon said guards to give warning to all persons. All such building materials and rubbish arising therefrom shall be removed from any public street by the expiration of the time limit in the above mentioned permit, or upon the revocation of said permit.

Subdivision (c). *Injuring streets*—No person shall injure any pavement, sidewalk, crosswalk or sewer, or dig any area, sewer or other excavation in a public street, or remove any earth or stone therefrom without permisison in writing from the commissioner of public works, and under such conditions as he may impose, and the said commissioner may order any sewer or excavation constructed contrary to the provisions of this subdivision to be filled up or altered at the expense of the owner.

Subdivision (d). Excavations near streets—Any person who shall dig a cellar or other excavation adjacent to and within four feet of the line of any public street, shall erect barriers between said street and excavation sufficient to secure public safety, and at all times during the night shall keep lighted lamps upon said barriers in such a manner as to give warning of the presence of such excavation; and if within twenty-four hours after notice from the commissioner of public works to place such barriers and lights such notice be not complied with, then said commissioner may cause such barriers and lights to be placed at the expense of the person so in default.

Subdivision (e). Street improvements—Whenever any public street is in process of construction or repair, it shall be the duty of the person performing the work to place and maintain such sufficient guards about said construction as to secure public safety until said street is ready for use, and at all times during the night to keep lighted lamps, not more than twenty-five feet apart, upon said guards, so as to give warning to all persons of such construction; and no person shall ride or drive any vehicle or animal upon any such street until the same is completed and open to the public use.

Subdivision (g). Awnings—Cloth awnings may be constructed in front of any store or building to project over the sidewalk not to exceed ten feet, provided such awnings be supported by an iron framework securely attached to said building in such a manner as to be at all times safe and self-supporting, and provided that every part of such awnings be at least seven feet above the surface of the sidewalk. Every owner or occupant shall at all times keep the awnings in front of such buildings free from snow, ice, dirt or other obstructions. No person shall suspend from any awning over any sidewalk merchandise or articles of any kind. No wooden awnings hereafter shall be erected without the consent of the commissioner of public works. The owners of all wooden awnings shall construct and maintain conductor pipes, which shall convey all water from said awnings to the street gutter and shall maintain said awnings in such a manner as to protect the sidewalk from leakage.

Subdivision (h). MOVING BUILDINGS IN STREETS—No building shall be moved upon or along any public street or place without permission in writing from the commissioner of public works, which consent shall specify the course of removal and may require a bond to the city of Rochester first to be given, signed by the applicant and one responsible surety approved by said commisisoner, conditioned that the applicant will, in all respects, comply with the terms and conditions of such permti, and indemnify the city against any danger or loss occasioned by reason of such removal.

Sublivision (c). PRIVY VAULTS AND CESSPOOLS—No privy vault, sink or cesspool hereafter shall be built except by permission of the bureau and in accordance with its directions; nor shall any building or cover be placed over any such vault, sink, or cesspool, until the same has been inspected by an officer of the bureau and found to be in accordance with the permit granted. All privy vaults hereafter made shall be of brick or stone, laid in cement, and of such dimensions as to contain at least fifty cubic feet for every family or group of five persons using the same; and such vault shall be so constructed as to be conveniently cleaned, and shall be made and maintained in such manner as to prevent the contents thereof from escaping. No privy vault or cesspool hereafter shall be built except in such places where there cannot be had connection with a public sewer, or with the public or other constant water service; and no privy vault or cesspool shall be built or maintained except upon premises which will permit their location at a distance of at least fifteen feet from any adjoining building used for human occupation, or for the storage of human food, and at least fifteen feet distant from the several lot lines of the lot on which the same is placed or the lines of any street adjoining such lot. In cases where the provisions of this ordinance do not allow privy vaults, there shall be provided for all the prpemises on which there are houses or other buildings used for human habitation, either for business, meeting or dwelling purposes, a water closet, or a suitable number thereof, as determined by the bureau.

Subdivision (e). OFFENSIVE PLACES OF BUSINESS—No person, firm or corporation shall build or use any asphalt factory, slaughter-house, cattle-yard, phosophate or fertilizing works or store-house, rendering establishment, or works for the reduction of garbage, dead animals or night-soil, or any soap factory, tannery or other place of establishment that shall give rise to nauseous or offensive odors without permission from the common council, which permission must be registered with the bureau.

BONDS FOR STREET OBSTRUCTIONS

Passed May 22, 1906

BE IT ORDAINED BY THE COMMON COUNCIL OF THE CITY OF ROCHESTER AS FOLLOWS:

Section 1. *Bonds necessary to excavate or obstruct streets*—The commissioner of public works is hereby directed, in all cases in which applications are made to him for consent or permission to make any excavation in or upon any public street, avenue, alley or other public place within said city, for the purpose of making sewer, water or gas pipe connections therein, or for permission to construct and maintain an areaway under the sidewalk or under any public street or place within said city, or for consent and permission to place any obstruction, temporary or otherwise, in any street, avenue, alley or other public place within said city, to require a bond in the penal sum hereinafter provided, with sufficient sureties to be approved by the commissioner of public works, and as to form and manner of execution to be approved by the corporation counsel or one of his assistants, to be given by the person or persons, firm or corporation by or in whose behalf such consent or permission is requested, indemnifying the city against all loss, cost, damage or expense sustained or recovered on account of any negligence, omission or act of the applicant for such permit, or any of his, their or its servants or agents, arising or resulting, directly or indirectly by reason of such permit or consent, or of any act, construction or excavation done, made or permitted under authority of any such permit or consent. All consents or permits of the commissioner of public works to the making of any such excavations, the construction or maintenance of any areaways, or the making of any such obstructions, shall be given subject to the right of the common council to revoke the same; and all bonds given in pursuance of the provisions of this ordinance as a condition precedent to the granting of any application aforesaid shall contain a stipulation to the effect that the consent or permit given by the commissioner of public works may be revoked by the common council at any time.

§ 2. *Bonds for areaways*—In all cases in which applications are made to said commissioner for permission to construct and maintain areaways under sidewalks or under any public street or place, or for consent and permission to construct or maintain any permanent excavation in or under any street or public place, or for consent and permission to place any permanent structure or construction of any kind in or upon any street or other public place within said city, the penalty of the bond to be required shall be not less than $5,000; and in all other cases the penalty of the bond to be required shall be not less than $2,000.

§ 3. *Annual bonds for plumbers and contractors*—Licensed plumbers, contractors and all persons, firms or corporations engaged within said city in the telephone business, gas and electric business, compressed air cleaning business, or any other business the nature of which would require or result in frequent applications for permits to make obstructions or excavations in the streets and highways of the city, shall not, however, be required to furnish a separate bond for each permit as a condition precedent to the granting of the same; but in all of such cases a general bond shall be given annually, indemnifying the city from any and all loss, cost or damage as aforesaid, resulting or arising directly or indirectly from any act done or permitted in pursuance of any such permits or consents thereafter granted, which said bonds shall be renewed from year to year so long as the persons, firms or corporations engaged in any or either of the classes of business above specified shall continue their respective businesses within the city.

PROVISIONS OF CITY LAW IN RELATION TO PLUMBERS AND PLUMBING.

General City Law (L. 1900, C. 327.)

§ 45. *Examinations; conducting business without certificate prohibited*—A person desiring or intending to conduct the trade, business or calling of a plumber or of plumbing in a city of this state as employing or master plumber, shall be required to submit to an examination before such examining board of plumbers as to his experience and qualifications for such trade, business or calling, and it shall not be lawful in any city of this state for a person to conduct such trade, business on calling unless he shall have first obtained a certificate of competency from such board of the city in which he conducts or proposes to conduct such business.

§ 46. *Registration, when required*—Every employing or master plumber carrying on his trade, business or calling in any city of this state shall register his name and address at the office of the board of health of the city in which he shall conduct such business, under such rules as the respective boards of health of each of the cities shall prescribe, and thereupon he shall be entitled to receive a certificate of such registration, provided, however, that such employing or master plumber shall at the time of applying for such registration hold a certificate of competency from an examining board of plumbers.

§ 53. *Plumbing and drainage to be executed according to rules*—The plumbing and drainage of all buildings, both public and private, in each of the cities of this state, shall be executed in accordance with the rules and regulations adopted by the local board of examining plumbers, in conjunction with the board of health for plumbing and drainage, and all repairs and alterations in the plumbing and drainage of all buildings heretofore constructed shall also be executed in accordance with such rules and regulations; but this section shall not be construed to repeal any existing provision of law requiring plans for the plumbing and drainage of new buildings to be filed with any local board of health and be previously approved in writing by such board of health and be executed in accordance therewith except that in case of any conflict with such plans, rules and regulations of the board of examiners, the latter shall govern.

Subdivision (f). PLUMBING AND DRAINAGE—Every structure built to be used, or used, for human habitation shall be connected with the public water service and the street sewer when they are within access.

NOTE—*The trade of plumbers and the construction and maintenance plumbing and drainage in the city of Rochester,* are regulated by the General City Law and by Plumbing Rules passed under authority of said law by the examining board of plumbers in conjunction with the commissioner public safety.

§ 56. *Issue of licenses to connect with sewers and water mains restricted*—The commissioner of public works of any city, or the officer or officers acting in a like capacity in any of the cities of this state, and having charge of the sewers and water mains therein, shall not issue a license to any one to connect with the sewers or with the water mains of such cities, unless such person has obtained and shall produce a certificate of competency from the examining board of such city.

WATER WORKS RULES

Passed August 23, 1904

BE IT ORDAINED BY THE COMMON COUNCIL OF THE CITY OF ROCHESTER AS FOLLOWS:

RULES AND RATES FOR USE OF WATER FROM THE ROCHESTER WATER WORKS.

ARTICLE I

GENERAL PROVISIONS

Section 1. *Name and nature of rules*—The following rules and regulations shall be known as "The Water Works Rules" and shall be considered a part of the contract with every person who uses water supplied by the Rochester water works. The right is reserved by the department to cut off water without notice for any violation of said rules, and the person whose supply of water from the city is thus cut off shall forfeit all payments made.

§ 2. *Definition of terms*—Terms used in these rules shall have the following meanings:

COMMISSIONER—The commissioner of public works.

DEPARTMENT—The water bureau in the department of public works.

WATER WORKS—The Rochester water works.

RULES—The rules and regulations established by the commissioner and approved by the common council, and the board of estimate and apportionment.

OWNER—A person, firm, corporation or agent controlling property.

ARTICLE II

RULES FOR THE USE OF WATER

§ 3. *No water without permission; granting permits*—No person shall be allowed to open any trench in the public streets for the purpose of laying any service connection with the water works, nor make any attachment to, or alteration in any water service pipe without a permit from the department. If the work is not completed by the plumber within four weeks from the date of the permit, said permit will be cancelled, if not renewed. Any person desiring water from the city water works must first make a written application to the department, stating fully the uses for which water is wanted and the name of the licensed plumber selected by the owner to do the work. The application must be signed by the owner of the premises or his duly authorized attorney. A permit to perform said work, and no other, may be issued to said licensed plumber.

§ 4. *Expense and risk is the owner's*—All expense attending the introduction of water from the street main into any premises must be paid by the applicant. The plumber designated in the permit will be considered as the agent of the owner, while employed in the prosecution of the work of introducing the water into the said premises. Neither the commissioner nor the city of Rochester is responsible for the acts of said plumber.

§ 5. *Adding to, or discontinuing services*—In case the owner shall desire to add to, or discontinue any service pipe or plumbing fixture, application must be made by him for an additional permit authorizing the desired change. If the owner desires to discontinue the use of water from any service he must make an application in writing for that purpose to the department and after the date of said application water rents shall cease for the period during which, said service shall be shut off, providing the period of said discontinuance shall be not less than three months. Whenever water has been turned off by the department, for any reason, no person shall be permitted to turn it on again who is not duly authorized so to do by the department. When water is turned off for non-payment of rents, or for violation of the rules, it shall not be turned on again until the party in default shall pay all water rents due, and the amount of all fines which may be imposed hereunder. If the owner at any time desires water turned on again to any premises after the same has been shut off, from any cause, he shall make an application in writing therefor to the department, and water rents thereon will accrue from the date of said application. Water shall not be turned on any premises until the rules are fully complied with. The commissioner or the city of Rochester will not be liable for any damage which may result to any person or premises, from the shutting off of the water from any water main or service for any purpose whatever, even in cases where no notice is given; and no deduction from water bills will be made in consequence thereof.

§ 6. *Excavation*—Whenever any street or public ground shall be opened for making a connection with, or for laying any water pipe or fixtures, there shall be constructed such number of bridges across said excavation as may be required to accommodate the public; and barricades, signal lights and such other protections shall be maintained as may be required by the water service inspector or by any city ordinance.

NOTE—*For provisions as to excavations in streets*—see this book, Penal Ordinances, Chapter IV, Public Safety and Good Order, § 37.

§ 7. *Restoring pavements*—In the case of an improved street, where the pavement is under guarantee, arrangements must be made with the contractor holding the guarantee, to refill the excavation and repave the street in accordance with the terms of the guarantee. In case of an improved street not under guarantee, the work of taking up and replacing the pavement, must be done by men experienced in the construction of the particular kind of pavement taken up.

§ 8. *Backfilling trenches*—The earth filled in and around the pipes or conduits, and to the depth of at least one foot above the top of the pipes or conduits, must be carefully selected and free from large stones or other hard substances, and thoroughly compacted by careful ramming or pounding. In completing the refilling of trenches from the aforesaid level, the earth shall be deposited in layers not exceeding six inches in thickness, each of which shall be well pounded or rammed with a rammer weighing not less than one pound, for each square inch of face surface, and no large stones or boulders shall be thrown into the trench. After the trench has been properly refilled, as aforesaid, up to a level of about one foot below the surface of the earth filling, the material in the trench shall be thoroughly moistened or flushed with water when directed by the commissioner or a duly authorized inspector. When the excavation is made through rock, enough earth must be furnished to replace the volume of stone removed, as only the smaller fragments of stone will be allowed to be used in refilling the trench. The foregoing specifications relating to refilling trenches, apply to all trenches, whether in improved or unimproved streets, or in pavements under guarantee or not under guarantee. In all improved streets, the surface of the trenches, after being filled, dried and settled, shall be finished without needless delay in the best and most workmanlike manner with the same kind of roadway improvement that was removed in excavating the trench, so that the underlying courses, as well as the finished surface shall conform to the remainder of the roadway, and shall in every respect be equal in quality, character, materials, and workmanship to the street improvement existing over the line of the trench immediately previous to making the excavation, and shall be so maintained for three years. In the case of an improvement having a concrete foundation, the sides of the old concrete shall be thoroughly cleaned and shall be cut on the edges, so as to form a good bond with the new work. The pavement shall be taken up far enough back from the edge of the excavation to allow a proper bond. The new concrete shall be composed of one part of the best quality American Portland cement, complying with the specifications required for new city work, three parts of clean sharp sand, and not more than six parts of clean broken stone. None of the old material, unless the stone be thoroughly cleaned from mortar, will be allowed to be used in making new concrete. The thickness of said concrete foundation shall be not less than the thickness of the old concrete and not less than six inches in any case. The backfilling of any water service trench in any public street or place shall not be commenced until the service shall be inspected, measured and accepted by some duly authorized agent of the department. If a water service trench is not properly refilled as provided herein or if it settles thereafter, the commissioner may cause it to be properly repaired without notice; and if such repair occurs within the period of the guarantee, all the cost of such repair shall be collected of said plumber, and if he shall fail to pay the same promptly on demand, his license shall be revoked. Should an excavation in a public street be left open or unfinished after the work is done, for the space of twenty-four hours, or should the work be improperly done or the rubbish not removed, the commissioner shall have the right to finish or correct the work, and the expense thus incurred shall be charged to the plumber whose work is thus finished or corrected, and said expense shall be paid by said plumber previous to his receiving another permit.

§ 9. *Tunneling*—No tunneling of streets will be allowed except by special written permit or order of the commissioner and under the following conditions: The tunnel excavation shall be as small as practicable, and shall be entirely refilled with concrete carefully rammed. All the work above specified, as well as the laying of pipe, sewers or other fixtures in the trenches must be done under the direct supervision of an inspector from the department. The cost of inspection must be paid by the licensed plumber, or person to whom the permit is granted, and such inspection shall not release the plumber, or other person, from any liability under these rules. This permit is given under the further condition that the person to whom it is granted will at all times comply with the rules and all existing laws and ordinances and it is subject to revocation by the commissioner at any time.

§ 10. *Tapping*—The work of inserting taps in any cast iron water main shall be performed only by persons employed by the commissioner, and the expense of said work shall be included in the cost of the tap. The work of inserting tees, branches or taps in wrought iron water mains, shall be done under the direction of persons in the employment of the commissioner, but at the expense of the owner or applicant. The department will determine the size of tap to be inserted under any application. Screw taps of brass shall be furnished by the department at the expense of the applicant at the following prices, to be paid on delivery:

For 1-2 inch tap and inserting	$ 2.00
For 5-8 inch tap and inserting	2.50
For 3-4 inch tap and inserting	3.00
For 1 inch tap and inserting	4.00
For 1½ inch tap and inserting	14.00
For 2 inch tap and inserting	17.00

§ 11. *Services; quality and how laid*—Owners desiring to introduce a water service pipe from a main passing their premises will be required to extend said service at right angles with said pipe main to the inside of the curb line, at which point a metallic curb-cock and curb-box, of such form and construction as may be approved by the commissioner, shall be connected and inserted, said box to contain a stub-wrench securely attached at the bottom to the handle of the curb-cock, and the top of same to extend to a point within a few inches of the under side of the cover of said box. The top of the cover of the curb-box shall be placed at the grade of the sidewalk of the street. Owners desiring to introduce water into premises along any front of which water mains have not yet been laid, must make application therefor to the department; and, in case a permit is granted, the said department will furnish a map or other explicit directions in detail in regard to the point and method of attachment to the street main, the position and depth which said service must occupy in the street, and all the attachments and appurtenances which are required for the proper control and management of said service, and also the material of which it shall be composed, all of which directions must be fully complied with. In general when a temporary pipe is laid in a public street it shall be laid in a line corresponding to that of the contemplated permanent water main. When opposite the premises to be supplied, the services from said pipe, shall be laid at right angles to said line of pipe and in a manner herinafter described. The supply pipe shall be of first quality galvanized iron and shall be connected with the permanent main from which supply is to be drawn, with at least four feet of "AAA" lead pipe. All services running therefrom must be of lead pipe as hereinafter specified and connected with said pipe by a corporation tap and coupling the size of the service. A stop cock shall be placed in the temporary supply pipe near the point of connection with the permanent water main if the commissioner or superintendent of water works shall so direct. A curb cock shall be placed in each service at the line of curb in order that separate control of same may be assured. The owner or owners of premises supplied by means of a temporary service of any description, shall, whenever a permanent water main is laid in the street, alley or highway upon which said premises abut, cause said temporary service to be discontinued and direct connection to be made with aforesaid permanent main. The expense of making such connection must be borne by the owner of the premises, except where a lead service provided with corporation tap and coupling and curb cock exists, the service being of a sufficient length to reach from the new main to the line of curb. Where such service is already laid the commissioner will cause same to be connected with the new permanent main without expense to said owner. Should the owner of premises so temporarily supplied refuse to make direct connection as specified above, the commissioner yill cause said temporary supply to be cut off from the premises. The owner receiving a permit for the introduction of a water service into his premises, and the plumber doing the work will be required to cause said service to be placed not less than four and one-half feet below the surface of the earth at any point between the water main in the street and the inside of the foundation wall of the building into which the water service is introduced, and, in case the final grade of the street has been officially determined and established, then said service pipe shall be laid at a depth of not less than four and one-half feet below said established grade at all points in said street, so that when the street is graded there shall not be less than four and one-half feet covering of earth over it at any point. Information as to the established grade of any street in which a service is to be introduced can be had at the city engineer's office, provided there exists any doubt or question in the matter. No water pipe which is to operate as a water main shall be laid in the same trench with a street sewer, either public or private, and no water service pipe shall be laid in the same trench with a lateral sewer, unless it shall be laid on the bottom of said trench or on a solid ledge, and in either case at least eighteen inches distant from the side of the lateral sewer. This section must not be construed as granting a permit to lay a lateral sewer in a water trench as a separate permit must be obtained for said lateral sewer. The above work must be so arranged as to be easily accessible and to the satisfaction of the service pipe inspector and the commissioner. The service must be of lead or tin lined lead pipe connected with the tap and extending therefrom to the inside of the curb and connected with the curb-cock. Said lead pipe is to be of the quality, strength, and weight known as "AAA, Brooklyn Guage," as follows:

½ in. cal. wgt. 3 lbs. per foot, 1.00 in. exterior dia.
⅝ in. cal. wgt. 3½ lbs. per foot, 1.10 in. exteriot dia.
¾ in. call. wgt. 4½ lbs. per foot, 1.33 in. exterior dia.
1 in. cal. wgt. 6 lbs. per foot, 1.60 in. exterior dia.

The said lead service shall have an excess of length of not less than six inches above the length required to connect the tap in the main and the curb-cock, so as to procure a slack, the greater part of which shall occur near the tap, which slack may be used up in case of any settling of the material used in back-filling the trench, without breaking the tap or service. The wiped joints and all other workmanship connected with said service shall be of the best character and satisfactory to the commissioner. The curb-cock must be of brass of the best character and workmanship and have a round water-way, with nut and washer bottom, and of such form or pattern as may be approved by the commissioner. The curb-cock may be furnished by the plumber, but must first be taken to the department shop and examined, approved and stamped or branded with the letters "R. W. W." by an agent designated by the commissioner for that purpose. In all cases, when a curb stop is one inch, an approved inverted key-curb-cock shall be used, and when a curb stop exceeds one inch water way an approved double disc valve will be required to be used instead of the usual form of stop. The service from the curb-cock into the premises may be of lead, tin-lined, lead, or wrought iron pipe, of equal strength with the lead pipe heretofore designated for service pipes in the roadway of the street. Just inside of the basement wall of the building into which the service pipe extends, a stop and waste-cock shall be conveniently located and arranged so that the water may be drawn back and all the pipes within the building emptied through said stop and waste by opening the faucets at the highest points therein and allowing the air to enter said pipes. Said waste must be kept open, in exposed situations, in cold weather, at all times, when the service is not in use for drawing water. All of the pipes connected with the service inside of the building shall be laid with an inclination toward the point in the basement where the stop and waste is located, without any sags or pockets, so that the pipes may thoroughly empty themselves from water when said waste is opened. But in cases where such sags or traps are unavoidable, an additional stop and waste shall be put in.

§ 12. *Double services*—Permission will not be granted to supply two or more buildings fronting on the same street from a single tap. In case of double dwellings, or blocks of dwellings, not exceeding four in number under one roof, water may be supplied through a single tap. The service shall be divided at the curb and a separate service extended therefrom, controlled by a separate curb-cock for each dwelling, or the single service may extend into one of the dwellings where a meter will be inserted and then beyond this meter the service may be divided to extend into the different dwellings. The commissioner or the superintendent of the water works shall decide in each case which plan shall be adopted. In case only one of several buildings occupies the frontage of a single city lot, and the others are located in the rear of the said front building, then permission may be granted to supply all of the said buildings from one service; but the owner will be required to place a meter upon said service.

§ 13. *Turning on water*—Water will be turned on only after the plumber has made a return of the work done, and after the applicant shall have signed a request for such turn-on. The curb-cock controlling any service shall not be left open by the plumber or any other person after connecting said service with the street main or after making any new extension or attachment in unoccupied premises, so that water may be supplied to said premises by said service, without a written permit from the department.

§ 14. *Care of services*—The owner of the property into which water is introduced by a service pipe, will be required to maintain in perfect order and repair, at his own expense, the said service pipe and its fixtures and appurtenances, from the curb-cock controlling said service to and into his premises. The city of Rochester will maintain and repair each lead water service supplying city water to premises, between the water main and the curb-cock controlling the service, providing the same is in the roadway of the street. In all cases where steam boilers are supplied with water a suitable safety or vacuum valve or other sufficient device must be applied, to prevent damage from collapse or explosion when the water is shut off from the street main, and in all cases where new hot water boilers are placed in houses, new or old, a suitable vacuum or safety valve shall be supplied. Water must not be allowed to run to waste under any circumstances. The officers of the water works, their agents, and assistants, may enter the premises of any water taker, at any reasonable time, to examine the pipes and fixtures, the quantity of water used and the manner of its use.

§ 15. *Stand pipes and automatic sprinklers*—Stand pipes or pipes for automatic suppression of fires in buildings, which fixtures are only intended for use in suppression of fires, will be permitted to be attached to the water supply, and no charge will be made for the use of water for that purpose; but all such pipes must be provided with a suitable valve outside of the building under the exclusive control of the department; also in the case of stand pipes a valve must be provided placed at the bottom of the stand pipe, and at each hose opening, which valve shall be sealed by the department. In case such seals shall be broken for the extinguishment of any fire, the party breaking the seal shall immediately thereafter give notice to the department and the valve shall be again resealed.

NOTE—For provisions as to the erection of stand pipes—see this book, Penal Ordinances, Chapter 1, Buildings and Combustiles, § 55.

§ 16. *Meters*—Existing services must be metered in the following places:

(a) Bakeries.

(b) Boarding houses or boarding schools (boarding over three persons besides single family).

(c) Fountains, jets and aquaria.

(d) Hose attachments.

(e) Hotels.

(f) Latrines.

(g) Laundries.

(h) Markets.

(i) Photograph galleries.

(j) Printing offices.

(k) Saloons and bars.

(l) Shops and manufactories.

(m) Soda fountains.

(n) Stables and barns.

(o) Steam boilers (when practicable).

(p) Urinals.

The commissioner reserves the right to attach a meter to any existing service pipe, at the expense of the owner, at any time whenever he shall deem it expedient so to do, and thereafter charge for the quantity of water measured or used, instead of the yearly schedule rates before charged, but in all such cases the minimum yearly rates thus paid shall amount to five dollars. After a meter is attached, any damage which said meter may sustain, resulting from the carelessness of said owner, agent or tenant, shall be paid to the commissioner on demand. Owners of premises may make application to the commissioner to procure and set for them an approved meter, at their own expense, and thereafter pay for the water used at meter rates, provided that the aggregate rates collected for the year from the water passing through said meter, shall not be less than five dollars. All persons hereby are forbidden to interfere with or remove a water meter from any service, after it has been attached by order or permit of the commissioner. In placing a meter to cover the whole premises in cases where a barn or stable is supplied with water from the same service which supplies a dwelling or other building with cellar or warm basement, the service shall first pass into the cellar of the dwelling or building before branching to the barn. Hereafter all new services from which water is to be taken for domestic use must be metered.

NOTE—About 52 per cent of the services are now (Dec., 1906) metered, and meters are being installed at the rate of about 500 per month. This will be continued until all water services in the city are metered. This policy was adopted to save the 40 per cent waste of water which existed under the old flat rates.

§ 17. *Water in exempted wards*—Parties owning property in that section of the city which formerly constituted the fifteenth and sixteenth wards, and which is not liable to taxation for the water works debt, will be allowed to use water from the city water works under the following conditions: A special application for such use must be made to the commissioner. The service which is intended to supply such water, and all the appliances and appurtenances connected therewith as well as the work of attaching and laying the same, must be under the direction of and to the satisfaction of the commissioner. The applicant for the use of said water will be required to pay into the water office, in addition to the regular schedule rates for water such percentage on each dollar of the assessed valuation of the property on which the water is used, as may be determined from time to time by the city assessors, as the percentage necessary to be assessed on the property of the city in that section formerly known as the old fourteen wards thereof, to provide for the water works debt. Whenever the common council or the commissioner of public works shal ldeem it necessary to extend a public water main to any street in the territory formerly known as the fifteenth and sixteenth wards in advance of a majority petition therefor, for the purpose of securing increased fire protection, or better circulation and supply of water, and said public water main is thus actually extended, thereby providing full fire protection and facilities for using the water therefrom on said street then the city lots fronting on the street in which said main is thus laid shall be subject to the frontage tax of three cents per lineal foot, as provided by section eighty-five of the old city charter as amended by laws 1896, chapter 777.

§ 18. *Dwellings, tenements and blocks*—In case dwellings, tenements or blocks occupied by families are supplied with water for baths, urinals, water closets, or other special uses, rates for families will in all cases be charged in addition thereto. All families or occupants of a single dwelling or tenement house, in any portion or room of which the water from the street mains has been introduced, will be charged the schedule rates for water, even though direct access to the water works appliances or fixtures in said dwelling or tenement house is not afforded to all the occupants thereof. All families or occupants of prpemises which are supplied with water through outside fixtures (such as garden hydrants, etc.) will be charged only with schedule rates for family use, precisely the same as if similar or like fixtures and appliances were located within the dwelling or tenement house. Where two or more distinct dwellings or tenement houses stand upon a single undivided city lot into only one of which dwellings or tenement houses water has been introduced in any manner with fixtures either inside or outside, or both, schedule rates for families in blocks will be charged the occupants of all the distinct dwellings or tenements upon said single undivided city lot, and no assessed valuation rates in this case will be charged on any of them, and schedule rates will be charged for special uses, such as baths, water closets, etc. only in the building in which the water is actually introduced, unless the water is carried into other buildings on said lot, for such special uses, by hose or otherwise. In all cases where water is supplied to a flat, block, tenement house or double house, located on a single undivided city lot, and occupied by more than one family, schedule rates for families in blocks will be charged for each of said families, and no assessed valuation rates will be charged against any of them, but schedule rates in addition will also be charged for all special uses such as baths, water closets, etc. No water taker will be allowed to supply the city water in any manner, or through any fixture or device whatever to the occupants of neighboring premises of any description, except by special permit from the commissioner.

§ 19. *Barns*—All barns or stables, having water attachments of any kind connected with city water works either inside or outside, adjacent to them, shall be charged schedule rates for the use of water therein, including the charge for attachments. In cases where no water attachments have been specifically provided for barns or stables, either inside or outside adjacent to them, and there are existing accessible outside attachments connected with, or provided for dwellings or buildings on the same undivided city lot, located within two hundred and fifty feet of said barn or stable, then schedule rates will be charged, otherwise no charge will be made.

§ 20. *Fountains, jets and aquaria*—All fountains must be provided with such a discharge pipe for waste water, and other fixtures as shall be satisfactory to the commissioner. The commissioner reserves the right to discontinue the furnishing of water for fountain jets, at any time the public interests may seem to him to require such action.

§ 21. *Steam engines and boilers*—In all cases where it is not practicable to meter the supply of water to steam boilers, the consumer shall, if required by the department submit and file in said department a verified statement from the maker of any steam boiler receiving its supply of water from the city water works, of its rated capacity in horsepower.

§ 22. *Water closets and urinals*—The commissioner recommends for use as water closets only such appliances as are provided with waste-preventing cisterns. Automatic flush tanks for a single water closet or urinal, or series of water closets or urinals, will not be allowed, except where the water service is permanently metered. All urinals in public or private buildings, for which annual schedule rates are charged, must be provided with self-closing inlet valves of such design as shall be approved by the commissioner. No bib or faucet of any kind for general use, excepting self-closing, will be allowed in any premises if placed so as to stand over any urinal, unless said premises are permanently metered. In case the waste water from any bath, urinal, sink, fountain, or other water works fixtures, is conducted or carried to and used for flushing any water closet, then the schedule rates for water closet uses shall be collected, although such waste is the only source of supply for such water closet.

§ 23. *Plumbers*—Any plumber wishing to do business in connection with the department shall before receiving a permit so to do, file or exhibit a certificate of competency from the examining board of plumbers. If said application is granted said plumber shall also execute to the commissioner of public works a bond in the sum of not less than $2,000, with sureties furnished by a duly authorized bonding company, conditioned to indemnify and save harmless the said commissioner and the city of Rochester of and from all damages and losses which may result from the work of said plumber being done carelessly or improperly, or in such a way that injury or loss results to the persons or property thereby, or by reason of his failing to comply with the rules, as they are now or may hereafter be established by said commissioner of public works, or with any existing law or ordinances of the common council. Every plumber shall within six days after completing any attachment, connection or alteration to any pipe or fixture connected with the city water works, make a true, correct and detailed return in writing on a blank furnished him for the purpose, of the nature of each and every attachment, connection or alteration thus made and the contemplated use of water by such attachments, and when run to a tank, shall state all the uses supplied therefrom, and file said return in the office of the department. After receiving a permit for the opening of any water service or trench, which requires the insertion of a tap in the main, with which to connect the said service the plumber shall file a written notice with the department before 8.30 o'clock A. M., if he desires the tap to be inserted in the forenoon, and before 12.30 o'clock P. M., if he desires the tap to be inserted in the afternoon, on the day in which he desires the tapping to be done, of his desire to have the tap inserted in the water main on that day, and such notice shall definitely designate the name of the street, and the house or lot number where the tap is to be inserted and the name of the owner or applicant, and the hour when the trench will be opened and ready for tapping. The plumber shall at the same time give notice in writing of the hour when he will be ready to have the whole service to the building, and the fixtures ready for inspection. Plumbers are prohibited from opening water service trenches for the introduction of new services during cold or stormy weather and the tapper will nit insert a tap in a main when the thermometer registers ten degrees below freezing. The plumber in all cases will be held responsible fir any damages which may result from exposing any water pipe main or service during cold weather. Printed forms if the notices required by the foregoing rules will be furnished by the department to the plumbers, and they will be required to use the same as stated. A permit will not be issued for the insertion of a tap in a water pipe, or for the insertion of a new water service in any street, when work is in progress on said street under a contract for laying a water pipe main, a main sewer, or for the improvement of said street, unless the written consent therefor of the contractor of such work or improvement shall first be filed in the department.

NOTE—*For the complete regulations governing*—see ,this book Plumbing Rules. *Every building used* for *human habitation shall be connected with the public water service and the street sewer when in access*—Health Ordinance, § 9, subdiv. (f), this book.

§ 24. *Hydrants and valves*—No person or corporation shall perform any act by which any fire hydrant or fire plug connected with the Rochester water works, shall be hidden from view, or by which said hydrant or fire plug shall be rendered difficult of access or operation, and no person shall hitch an animal to any fire hydrant, or other attachment or appliance of the water works, nor shall any unauthorized person open or interfere with the hydrants, valves or other water works fixtures. Upon obtaining authority from the commissioner, hydrants may be used for regular city improvements made under ordinances of the common council, or repairs or improvements ordered by the commissioner, but only after a suitable extension nozzle has been attached to each such hydrant by the department. When use of hydrant is to be discontinued, notification from the person to whom the permit has been granted must be made to the commissioner, or his authorized agents who shall cause said main valve of hydrant to be closed, the extension nozzle removed and the use of hydrant under permit shall thereupon be discontinued. The person or persons to whom such permission is granted will be held fully responsible for the safety of said hydrant and attachment while said permit is in force.

§ 25. *Payment of rates*—All water bills made on the basis of annual schedule rates shall be payable annually, in advance, on the first day of January; but if in any case water rents shall not accrue in any year until after the first day of January then said rents shall become due and payable at the date when the water is turned on the premises, for the period remaining from said date to the first day of January following. All bills for metered or estimated quantities of water shall be payable quarterly, during the months of April, July, October, and January in each year; but bills for metered water shall be furnished for the information of owners of property in which said metered water is used, as follows: On accounts exceeding $5.00 per quarter, monthly; on accounts less than $5.00 per quarter, quarterly. The bills for water which is paid for at annual schedule rates, will not be sent to the owner or consumer, but will be furnished to him only on application at the water office. To the amount of all other meter bills which are not paid during the calendar months in which they become due, an addition of one per cent shall be made on the first day of each succeeding month, up to and including January 1, when all meter bills then due and unpaid, except the meter bills for quarter immediately preceding and ending at that date, shall, with interest added at the rate of ten per cent per annum, be returned to the city assessors and by them be placed in the general city tax levy, for collection in accordance with the provisions of the charter. The commissioner reserves the right to shut off the water without notice if meter bills remain unpaid fifteen days after they become due. To the amount of all yearly bills for water, which are paid during the first, second and third months after they become due, no percentage will be added. To the amount of all yearly bills which are paid after the third month after they become due the following amounts will be added. (a) During the fourth and fifth months, two per cent; (b) During the sixth and seventh months, three per cent; (c) during the eighth and ninth months, four per cent; (d) during the tenth and eleventh months, five per cent; (e) during the twelfth month, six per cent. The amount of all yearly bills due and remaining unpaid at the close of business on the last day of December of each year, shall on the first day of March next succeeding, be returned to the city assessors, and with the addition of interest thereon, at the rate of ten per cent per annum from the date when said amounts became payable, shall be by them placed in the general city tax levy, as an assessment against the property on which said rents have accrued, as provided by law. No rebate will be made from established rates on any bill except by the commissioner. The commissioner may make abatements in water bills, when consistent with these rules, in cases where it is necessary to correct clerical errors, in the interpretation of these rates or rules, and in all other cases which said commissioner may regard as just and equitable.

§ 26. *Penalties*—A violation of this ordinance shall be punishable by a fine not exceeding one hundred fifty dollars, or by imprisonment not exceeding one hundred fifty days, or by both such fine and imprisonment, or by a penalty not less than five dollars, nor more than five hundred dollars, to be recovered by the city of Rochester in a civil action. (*As amended June* 13, 1905, *which amendment was made necessary by L.* 1905, *Ch.* 191, § 3).

PLUMBING RULES

Passed Nov. 24, 1904

BE IT ORDAINED BY THE EXAMINING BOARD OF PLUMBERS AND THE COMMISSIONERS OF PUBLIC SAFETY OF THE CITY OF ROCHESTER AS FOLLOWS:

THE PLUMBING RULES.

Article I.	General Provisions
Article II.	Regulations as to Plumbing and Drainage
Article III.	Penalties and Repeals.

ARTICLE I

GENERAL PROVISIONS

Section 1. *Name of chapter*—The provisions of this chapter shall constitute and be known as "The plumbing rules of the city of Rochester."

§ 2. *Definitions*—Terms used in the plumbing rules shall have the following meanings:

THE COMMISSIONER—The commissioner of public safety.

THE BOARD—The axamining board of plumbers.

THE HEALTH OFFICER—The health officer appointed by the commissioner as provided by law.

THE INSPECTOR—The chief inspector of plumbing and drainage.

SEWER—Is a general term for the drain used to convey the drainage from the soil, waste and conductor pipes to the street sewer. It consists of the house lateral and the house drain.

HOUSE LATERAL OR MAIN DRAIN—Is the drain connecting with the street sewer and extends to the house drain.

HOUSE DRAIN—Is the drain connecting with the house lateral at a point at least three feet outside the cellar wall and extending into, and generally through, the cellar to receive the drainage from conductor, waste and soil pipes.

CONDUCTOR OR LEADER PIPES—Are pipes conveying the storm or rain water from the roofs of buildings to the house drain.

WASTE PIPES—Pipes conveying the waste water from all fixtures except water closets to the soil pipes or house drain.

SOIL PIPES—Pipes conveying the discharge from water closets to the house drain.

FRESH AIR INLET—A pipe connecting with the house drain just inside the house trap and extending to the open air.

VENTILATING PIPE—A pipe connecting with the soil pipe, generally at its highest point, and extending above the roof of the building.

BACK VENTS OR VENT PIPES—Are pipes connecting with the traps under fixtures and extending either through the roof or joining with the ventilating pipe.

YOKE VENTILATION—Is a system of ventilation by means of which syphonage and back pressure on the seals of traps are prevented by running two separate ventilating pipes; the fixtures being placed between these two stacks.

STACK—A general term for any line of pipe extending from the cellar through the roof. By soil pipe stack is meant the soil pipe and ventilating pipe.

PLUMBING FIXTURE—Any article connected with the sewer system or water service. (*As amended Des. 24, 1906*).

§ 3. *When rules shall govern*—No person shall construct any system whereby drainage or fluids are discharged into a cesspool, water course or sewer or make any connection, extension repairs, alterations, or ventilation of any such system, or any part thereof, or connect or disconnect any fixture, except in compliance with these rules and the laws of the state of New York. A change in the style or location of a fixture shall be governed by the same rules as new work. All plans and specifications for the construction of new, or the reconstruction or alteration of old, plumbing or drainage shall conform with these rules; and plans for the construction of sewers and drains shall be approved by the health officer or the commissioner before said sewers and drains are constructed. The provisions of these rules apply to existing buildings as well as to new work. (*As amended Dec. 24, 1906*).

§ 4. *Supervision of work*—All work of plumbing and drainage shall be performed under the direction of an employing or master plumber holding a certificate of competency issued by the examining board of plumbers and who is registered with the bureau of health and licensed by the commissioner of public works as required by law, except that contractors may construct house laterals from the main sewer to the street line when authorized so to do by said commissioner of public works. Master plumbers shall not lend or assign their certificate or licenses and shall comply with these rules.

ARTICLE II

REGULATIONS AS TO PLUMBING AND DRAINAGE

§ 5. *Materials and workmanship*—In general all materials used in any plumbing and drainage system shall be of good quality and free from defects, and all labor shall be performed in a thorough and workmanlike manner. All piping shall be as direct as practicable and so arranged that it may be repaired readily, but no part of a plumbing or drainage system shall be exposed needlessly to freezing or damage.

Specific regulations as to materials and workmanship are established as follows:

CAST IRON PIPES—Cast iron pipes shall be of the grade known to commerce as "extra heavy," and shall be thoroughly coated inside and outside with coal tar pitch, applied hot, or with some equally good coating.

The minimum weight of cast iron pipes per foot shall be as follows:

2 inches	5½ lbs.
3 inches	9½ lbs.
4 inches	13 lbs.
5 inches	17 lbs.
6 inches	20 lbs.
7 inches	27 lbs.
8 inches	33½ lbs.
10 inches	45 lbs.
12 inches	54 lbs.

Standard weight cast iron pipe may be used in any extension to an existing plumbing or drainage system, where more than fifteen feet in length of such pipe is already in use.

WROUGHT IRON PIPES—Wrought iron pipes shall be standard galvanized iron. All joints in such pipe shall be screwed joints and all burrs or cuttings on the inside of such pipes shall be removed before the joints are made up.

The minimum weight of wrought iron pipes per foot shall be as follows:

1 inch	1.67 lbs.
1¼ inches	2.24 lbs.
1½ inches	2.68 lbs.
2 inches	3.61 lbs.
2½ inches	5.74 lbs.
3 inches	7.54 lbs.
3½ inches	9.00 lbs.
4 inches	10.66 lbs.
4½ inches	12.49 lbs.
5 inches	14.50 lbs.
6 inches	18.76 lbs.
7 inches	23.27 lbs.
8 inches	28.18 lbs.
9 inches	33.70 lbs.
10 inches	40.60 lbs.

FITTINGS—All fittings shall be of the same material and shall correspond in weight and size to the pipes with which they are used. "Y's," half "Y's," sanitary "T's," quarter, sixth, eighth or sixteenth bends shall be used for connections and changes in direction in soil or waste pipes or drains. Increase or reduction in size shall be made by the use of a proper fitting. "T's," may be used only in the ventilating pipe, fresh inlet air or back vent system or for clean-out openings. All clean-out screws shall be of the New York city regulation pattern. Saddle hubs shall not be used in any case.

LEAD PIPES—Lead pipes shall be drawn pipes and the minimum weight shall be as follows:

¾ inch	1 ib. 8 oz. per foot
1 inch	2 lbs. per foot
1¼ inches	2lbs. 8 oz. per foot
1½ inches	3 lbs. 8 oz. per foot
2 inches	4 lbs. per foot

The above is the table of weight of "D" lead pipe.

LEAD BENDS AND TRAPS—The minimum weight of lead bends and traps shall be as follows:

1¼ inches	1½ lbs. per running foot
1½ inches	2½ lbs. per running foot
2 inches	3¼ lbs. per running foot
3 inches	5 lbs. per running foot
4 inches	6 lbs. per running foot

SIZE OF PIPES—Pipeps shall be for the following sizes:

SOIL PIPES

1 water closet	2 fixtures
1 bath, etc.	1 fixture

Minimum Diameter	Number of Fixtures
Iron	
4 inches	1-30
5 inches	30-50
6 inches	51-

WASTE PIPES

Minimum Diameter	Number of Fixtures
¾ inches	Fountain Cuspidors
1¼ inches	1-4
1½ inches	5-6
2 inches	13-26
2½ inches	13-26
3 inches	27-81

Except in the case of fountain cuspidors, a waste pipe of a smaller size than the trap to the fixture shall not be used.

Minimum Diameter	Number of Traps	Maximum Length Used	After Maximum Length Increase Every
1¼ inches	1-3	40 feet	20 feet
1½ inches	4-6	40 feet	20 feet
2 inches	7-14	40 feet	20 feet
2½ inches	15-21	40 feet	20 feet
3 inches	22-28	40 feet	20 feet
3½ inches	29-35	40 feet	20 feet
4 inches	36-	....	....

HOUSE DRAINS—House drains shall be constructed of extra heavy cast iron or galvanized wrought iron pipes, or vitrified earthenware pipes, as follows:

Extra heavy cast iron or galvanized wrought iron pipes shall be used within the walls of any house or building and to a point at least three feet outside of the walls, when such building has a regularly constructed cellar. Vitrified earthenware pipes may be used in any house or building which has no regularly constructed cellar, provided such drain is covered with at least one and a half feet of earth. Where vitrified earthenware drains are used, however, those portions of same receiving sheet mtal conductors on th outside of buildings at grade, shall be of extra heavy cast iron or galvanized wrought iron pipes and said pipes shall extend at least eighteen inches under ground, and be properly connected to the earthenware pipe. Vitrified earthenware pipes may be used for the construction of barn and stable drains. Tile house sewers previously installed and in use may be relaid or extended for additional fixtures in old buildings, provided fifteen feet of said sewer within the walls is actually in use, and is of such depth below the surface of the cellar floor that the extension shall have the proper fall and still be three inches below said floor. When constructed of cast iron or galvanized wrought iron pipes, the house drain may be securely hung on the cellar wall or suspended from the ceiling. When not so supported, the house drain shall be laid in a trench, the bottom of which shall be made thoroughly compact. At least two four inch brass screw clean-outs of the New York city regulation pattern shall be provided in the house drain; one in the hand hole, or extension thereto, of the house trap, and the second, near the end of house drain or near the soil pipe. In all cases, both shall be accessible for cleaning and flushing purposes. All changes in directions shall be made by means of eighth or sixteenth bends, and all connections by means of "Y" branches or sanitary "T's." An increase or reduction in size shall be made by using a proper fitting. Extra heavy cast or galvanized wrought iron, used for drain or soil pipes, may be drilled and tapped for waste and vent pipes not larger than one and one-half inches in diameter where fixtures are added after the system is completed. Where the joint is made between a four inch iron house drain and a five or six inch earthenware house lateral, the iron pipe may be extended into the tile pipe and the joint properly cemented with hydraulic cement, and a reducer will not be required. A quarter bend may be used at the foot of a soil or waste pipe stack or conductor pipe. The house drain shall be not less than four inches in diameter and shall have a fall of at least one-quarter inch per foot. (*As amended Dec. 24, 1906*).

HOUSE LATERALS—If the ground be made or filled in, house laterals shall be of extra heavy cast iron or galvanized wrought iron pipes, but if the ground consists of a bed of loam, sand or rock, either extra heavy cast iron, galvanized wrought iron or vitrified earthenware pipe may be used. House laterals shall run as directly as practicable and in perfect line on the bottom and sides. Changes in direction shall be made with proper bends and all connections shall be made with "Y" branches; said laterals shall be laid to a true grade of not less than one-quarter inch per foot, and as deep as the main sewer will permit. For ordinary lots, house laterals shall not be less than five inches in diameter, if of earthenware pipe, nor less than four inches in diameter if of cast or wrought iron pipe. In the case of stores, manufacturing establishments, flats and public buildings, the size shall be sufficient to drain the roof area and fixtures. Where pipes pass under the walls of a building, there shall be a relieving arch to prevent the pipes from being damaged by settlement of the masonry. (*As amended Dec.* 24, 190*).

JOINTS—Joints in cast iron pipes shall be made with oakum and molten lead, caulked and smoothly faced. Joints in wrought iron pipes shall be made up with screw threads having white or red lead or mineral paint applied to the male part of the thread. If earthenware pipes be used, each joint shall be wet before applying the cement. The space between the hub and spigot end shall be completely and uniformly filled with good hydraulic cement and each joint shall be cleaned on the inside before the next joint is made. No re-tempered cement shall be used. Lead pipes shall be joined by wiped or overcast joints. Connection of lead and iron pipes shall be made by means of an extra heavy brass ferrule, brass soldering nipple or ground seat brass union and a wiped or overcast joint.

FLOOR CONNECTIONS—A cast-iron trap or cast-iron fitting shall not be used to make the floor connections of any fixture except with a proper flange.

WOODEN FIXTURES—Wooden sinks, laundry trays or other fixtures, shall not be used in any dwelling, hotel or restaurant.

WASTE PIPES—Waste pipes shall be of extra heavy cast iron, galvanized wrought iron, lead, brass or copper. Lead, copper or brass waste or vent pipes shall be drawn pipe. Waste pipes shall have as great a fall as practicable. Waste pipes that receive the discharge of two or more fixtures, one above the other, on different floors, must be extended, of full size, through the roof in all new buildings, in the same manner as other ventilating pipes. (*As amended Dec.* 24, 1906).

DRINKING FOUNTAINS—The waste pipes from drinking fountains shall be separately trapped with antisyphon traps.

FOUNTAIN CUSPIDORS—Fountain cuspidors shall have an antisyphon trap located as close to the fixture as practicable. The waste pipe from such a fixture shall not be less than three-quarters of an inch in diameter.

REFRIGERATOR WASTES—The waste pipes from a refrigerator, ice box or ice tray, or any receptacle in which provisions are stored shall not connect directly to any drain, soil or waste pipe, and such waste pipes shall be arranged so that they may be properly flushed. The said wastes may discharge as follows: Into an open fixture; or on the ground outside the building and within plain sight; or into an antisyphon trap provided with a funnel-shaped receiver, with a brass screw or a gate valve, so that the opening to the trap may be closed when waste is not in use; or into a common trap not less than three inches in diameter provided with a funnel-shaped receiver, where such trap has either a constant intake of water or receives the water from a roof. (*As amended Dec.* 24, 1906).

OVERFLOW PIPES—The overflow pipe from a tank shall not be connected directly with any drain soil or waste pipe. Such pipe shall discharge into an open fixture or into the roof gutter.

SAFE WASTE PIPES—Waste pipes from safes placed underneath fixtures shall not be directly connected with any drain, soil or waste pipe. Such pipes shall discharge into an open fixture or upon the cellar floor. Urinal platforms or safes may be directly connected to a drain, soil or waste pipe, but a deep seal or drum trap shall be used, and arrangements made for flushing the same and maintaining the seal.

WASTE PIPES FROM ACID SINKS—Waste pipes from acid sinks shall be constructed of extra heavy cast iron pipe, or "standard" cast iron pipe, if enameled on the inside and tar coated on the outside or of vitrified earthenware pipe.

CREAMERIES AND MILK HOUSES—Waste pipes from milk vats and sterilizers shall be of the same size and material as wastes from sinks. Such wastes may discharge on a water-tight floor having a catch basin, or they may discharge into a properly constructed sink. When connected to a drain, soil or waste pipe, such waste pipes shall be separately trapped and back vented, except where an antisyphon trap may be used as hereinafter provided. Drainage pipes for floors of milk rooms where milk is stored and where milk bottles and vessels are washed and filled shall be either tile or cast iron, and be provided with a trap not less than three inches in diameter, or a suitable catch basin. The floors of such milk rooms shall be of some non-absorbent material, such as Portland cement or asphalt, laid with a true grade to the trap or catch basin. Milk vats or ice boxes where milk is stored may waste on such floors.

PUBLIC LAUNDRIES—Waste pipes for wash trays, washing machines and similar fixtures may discharge on the floor in public laundries, dye houses or similar establishments, located in rooms having water-tight floors, and a properly constructed floor wash trap or catch basin. (*As amended Dec.* 24, 1906).

STABLE RACKS—Stable wash racks shall not be connected to any sewer, drain or lateral, unless a suitable catch basin is provided to prevent obstruction.

EXHAUSTS, BLOW-OFFS AND DRIP CONNECTIONS—The exhaust, blow-off or drip pipe from a steam boiler shall not connect directly with any sewer, drain, soil or waste pipe. Such pipes shall discharge into a condenser provided with a relief pipe of at least two inches diameter, and the waste from said tank or condenser shall connect to the house lateral or to the house drain outside of the house trap. A sewer into which such condenser discharges must receive sufficient drainage, aside from that received from conductors, to cool the discharge, or have such cooling processes as may be approved by the bureau of health. Water so hot that it will cause steam to rise in the sewer shall not be allowed to enter any street, drain or lateral.

Conductors—Conductors shall be constructed of extra heavy cast iron or galvanized wrought iron pipe when placed within the walls of any house or building, except that conductors that connect to a cast iron fresh air inlet must be of the same material as said inlet. The minimum size of conductor pipes shall be three inches and all conductors shall be trapped and said trap provided with a brass screw clean-out. Roof joints on inside conductors shall be made by means of a brass ferrule and copper of lead pipes. All conductors on the combined system shall be connected with the house drain on the house side of the house trap. Conductor pipes shall not be used as soil, waste, ventilating, back vent pipes or fresh air inlets, nor shall soil, waste, ventilating, back vent pipes of fresh air inlets be used as conductors, except that conductors may connect to the fresh air inlet. When an existing sheet metal conductor pipe within the walls of any building becomes defective, such conductor shall be replaced by one which conforms to these rules. (*As amended Dec.* 24, 190*).

Dead ends—Whenever any plumbing or drainage system, or any part thereof, is reconstructed, remodeled or in any altered, all dead ends or unused parts, when practicable, shall be removed and the openings or connections for same shall be securely capped or plugged.

Unused fixtures—The inspector, with the approval of the health officer, may order the removal of any fixture that is defective or not in common use. (*As amended Dec.* 24, 1906).

Sewer connections—Where available, every building shall have an independent connection with a sewer, and such drain shall have an independent trap and fresh air inlet. No conductor, soil, waste or drain pipe from one building shall connect to a similar pipe from another building, except where one building is in the rear of another, and no sewer is available for the rear building, in which case the drain from the front building may be extended to the rear building and the whole be considered as one drain. Where such extension is made it shall be necessary to supply a trap, and fresh air inlet, located with relation to the front building as may be required by the inspector. No building, lot or premises shall be connected to a private sewer without a permit having been first obtained from the health officer. Where there is a system of sewers intended for sewage only, stormwater conductors and surface water drains shall not be connected therewith, except upon the written approval of the health officer, the commissioner of public works and the city engineer. Where a stormwater sewer and a sewage sewer are constructed in the same street, the sewage lateral from the house shall be connected with the sewage system and the conductors and surface water drains shall be connected with the stormwater sewer. No sewage lateral shall be connected with a stormwater sewer. (*As amended May 29th,* 1906).

House traps—Every house shall have a single or double or double hand hole running or half "S" trap of the same size and material as the house drain or lateral, and a suitable fresh air inlet. Where a house drain is reconstructed or relaid a trap and fresh air inlet shall be installed if not previously provided.

Fresh air inlet—The fresh air inlet shall be of the same material as the house trap and at least four inches in diameter. It shall connect to the house drain inside the house trap and as close to that trap as practicable and shall extend to the outer air. The opening to the outer air may be placed in the curb or sidewalk, in the yard or under a porch. When in the curb or sidewalk, a grating and receiving pocket or a perforated hitching post shall be used, but in such case the total area of the perforations shall not be less than twelve square inches. When in the yard the opening shall be at least eight feet from any window, door or ventilating shaft, and said opening shall not be less than eight inches above the grade and shall be provided with an approved cap or a four nch return bend. When placed under a porch, suitable ventilation to the porch shall be provided. In no case shall the opening to the fresh air nlet be placed near a cold air inlet for the heating or ventilating system except that the inlet to a cold air box and the fresh air inlet may both be placed under a porch, provided a tight board partition is built between hem. Every building in which water closets are installed shall have at east one four inch soil or vent stack extending through the roof, and such water closets shall be otherwise ventilated as hereinafter provided; except that a vent stack of two inches diameter may be used in barns and automobile houses connected with a house drain where there is an existing four inch vent stack. (*As amended Dec.* 24, 1906).

PIPES THROUGH ROOFS; ADJOINING BUILDINGS—Ventilating and back vent pipes shall be increased at least one size before passing through the roof and shall extend at least one foot above the roof. The terminals of such pipes shall be at least three feet above any window less than ten feet from such terminal. Where one building adjoins another of a greater height having windows or openings overlooking the lower building, the terminals of all ventilating and back vent pipes in said lower building shall be at least twelve feet from said windows or openings of the higher building or said terminals may be extended undiminished in size three feet above the windows of such higher building. When such extensions are more than five feet they may be made with galvanized sheet iron or sheet copper pipe.

SEPARATE SEWERAGE SYSTEM—A separate system of sewerage and drainage may be constructed of stoneware vitrified tile for conveying rain water only. Said tile must have a separate trap and connect outside the building with the house lateral between the house trap and the main sewer. The sewer shall comply in all respects with these rules and the trap shall be accessible for cleaning. The tile sewer in the cellar shall not be used in any streets where the water from the main sewer is known to back up th house drain to the cellar bottom.

SUB-SOIL DRAINS—Unglazed tile pipe without hubs shall be used for sub-soil drains. The joints shall not be cemented and the drain shall be laid with a slight pitch towards a suitable catch basin of iron or vitrified earthenware. The waste from this catch basin shall be considered part of the house drain and shall conform to the provisions governing house drains.

CELLAR DRAINS OR FLOOR WASHES—Cellar drain or floor washes shall be not less than three inches in diameter. Such drains shall be provided with a suitable trap of the same size and material as said drain and this trap shall be provided with a brass screw plug or end ferrule of the New York city regulation pattern. Cellar drains or floor washes with an open connection may be used only where there is a sufficient intake of water to insure a seal at all times. Clean-out openings shall not be used as cellar drains or floor washes. Wet cellars must be provided with cellar drains in all cases. Where a soil, waste or conductor pipe is connected to an earthenware house drain in any cellar or basement, the joint shall be thoroughly made with good hydraulic cement. The soil, waste or conductor pipe shall in all cases extend to the house drain and no tile joint or extension shall be allowed above the cellar floor. (*As amended Dec.* 24, 1906).

DRAINAGE OF YARDS AND AREAS—Yards and areas shall be properly graded and drained. When the drain from said yard or area is connected with the house drain, it shall be trapped effectually. Yard and area drains shall be connected to the house drain inside the house trap, and when connected to a conductor branch, when practicable, shall be connected inside of the conductor trap.

BACK VENTS OF TRAPS—All traps shall be adequately protected from syphonage and air pressure by connecting to the crown of each trap a suitable back vent. Water closet traps shall be back vented only as hereinafter provided. Antisyphon traps need not be back vented when used as provided herein.

BACN VENT PIPES—Back vent pipes shall be extra heavy cast iron, galvanized wrought iron, brass or copper. Lead pipes shall be used only in making short connections between the trap and iron, brass or copper back vent pipes. All pipes used in ventilating a plumbing and' drainage system, or part thereof, shall be so arranged that they will not collect water from condensation. A back vent shall be run at least six inches above the fixture before being connected to another back vent or ventilating pipe in order to prevent the vent acting as a waste pipe. Back vent pipes shall be increased as fixtures are added, but in no case will it be required to increase a back vent above four inches in diameter. Washer unions, rubber connections, or slip or expansion joints shall not be used on back vent pipes.

YOKE VENTS—The yoke vent system shall be used for a group of three or more water closets. Water closets, and slop sinks with sink and trap combined, are not required to be back vented when attached to the yoke vent system. All other fixtures attached shall be properly trapped and back vented or provided with approved antisyphon traps. A modified yoke vent in which one ventilating pipe is connected to the other may be used for a group of water closets provided there are no other fixtures connected to the soil pipe above said water closets. The yoke shall not be constructed of pipes less than three inches in diameter and where there are six or more water closets the diameter shall be four inches at least. A modified yoke vent system may be used for sinks, basins and urinals, provided the trap for such fixtures is not more than two feet from the vent line and "Y's" or sanitary "T's" are used at waste connections. (*As amended Dec.* 24, 1906.)

TRAPS FOR FIXTURES—Every fixture in a plumbing or drainage system shall be separately trapped and back vented. A group of basins, a combined sink and wash tray, or a set of wash trays, shall be considered one fixture and require but one trap. In cases where any antisyphon trap may be used, back venting shall not be required. The trap shall be placed as close to the fixture as practicable, and in no case more than two feet distant. The waste from the bath, basin or other fixture, shall not be connected to a water closet trap.

TRAPS UNDER FLOORS—All traps placed under floors shall be of such a pattern as to allow the removal of the trap screw or cover for cleaning purposes, without taking up the flooring. When the fixture is on the first floor and the trap is accessible from the cellar, a trap of this pattern need not be used.

TRAPS PROHIBITED—Bell traps having covers over hand-holes which are held in place by lugs or bolts, are prohibited. (*As amended Dec. 24, 1906.*)

BACK WATER TRAPS—Back water traps may be used when placed on a branch of the house drain that receives only the discharge from basement or cellar fixtures.

GREASE TRAPS—Grease traps installed in any house, hotel, restaurant or other building, shall be constructed properly and have a screw top or lock cover, so arranged and located that it may be accessible for cleaning purposes.

REPLACING TRAPS UNDER FIXTURE—Whenever a trap is replaced under any fixture the new trap shall be back vented properly or an approved antisyphon trap used.

ANTISYPHON TRAPS—Such antisyphon traps as have been approved by the board may be used in plumbing and drainage systems on all fixtures excepting water closets and slop sinks having large traps. The following antisyphon traps have been so approved and may be used without back ventilation. The Sanitas trap; the Cudell traps, known as Nos. 7-S, 7-P, with 2½ and 3 ½ inch drum, No. 10 perpendicular, No. 11-P, No. 12-P, No. 12-S, No. 13 bath, No. 13-P bath; the McAuliffe traps known as No. 18 brass bath trap, No. 1 brass basin, No. 14 tread sink, the Ideal No. 186 brass sink; the positive traps, known as 100 A and B, and 101 A and B; the positive brass bath trap; and the Turner double seal bath trap. (*As amended Dec. 24, 1906.*)

WATER CLOSETS REQUIRED—Every structure used for human habitation or occupancy, when situated so as to be within access of a public sewer and public water service, shall be provided with at least one water closet for every three families. In all cases at least one water closet shall be provided for every ten persons.

CLOSET SOIL PIPES—Horizontal runs of soil pipe shall have as great a fall as practicable and in no case shall such fall be less than one-quarter of an inch per foot. A water closet shall not discharge into a pipe less than four inches in diameter without special permission of the inspector and there shall be a lead or brass connection between said water closet and the soil pipe or house drain.

BACK VENTS FOR WATER CLOSETS—Water closets shall be back vented by connecting the back vent pipe to the water closet bend or connection as close to the water closet, and as near to the top side as possible. In no case shall a back vent pipe be connected to an earthen water closet. In buildings more than four stories high with one or two water closets on a floor that discharge into the same line of soil pipe, and where the top water closet or water closets are located above the fourth floor, all but the top water closet must be back vented. Where one or two water closets are located more than twelve feet from the line of soil pipe into which they discharge on any floor above the cellar or basement they must be back vented. In any building where more than two water closets are located on a floor the yoke vent system must be provided. In buildings four stories high or less, with one or two water closets on a floor, no back vents will be required. Where two water closets are located on any floor that cannot to the soil pipe or sewer by means of a double Y, said water closets will be considered as one fixture and will be back vented in like manner. A water closet located in cellar or basement need not be back vented provided there is an existing line of four inch soil or vent pipe that extends through the roof from the same sewer. Where a group of more than two water closets are located in a cellar or basement, ventilation shall be provided by means of a yoke vent or by running a line of four inch pipe through the roof. (*As amended Dec.* 24, 1906.)

LOCAL VENTS FOR CLOSETS—A local or seat vent shall be constructed of galvanized sheet iron or sheet copper pipe. The local vent from one water closet shall be at least three square inches in area, cross section, and where a number of local vents are connected, at least three square inches in area, cross section shall be allowed for each water closet. Such vents shall be connected to a heated flue above the highest opening in said flue.

ANTI-FREEZING WATER CLOSETS—Long hoppers with flush tanks and flush rims shall be used for anti-freezing water closets. Such water closets shall be separately trapped directly underneath by a trap having a four inch clean-out screw. When located in a building used for human occupancy, such water closets shall be ventilated and back vented as an ordinary water closet. When located in a yard, or a building not used for human occupancy, no ventilating pipe or back vent pipe will be required.

PROHIBITED CLOSETS AND FIXTURES—Pan, plunger and valve water closets having direct connection to any water service, wash-out closets, offset water closets with or without flush tanks, latrines, troughs, the automatic water closet range, and the Smead system of closets, are prohibited. Long oval or straight back hoppers with flush tanks and flush rims are prohibited, except for anti-freezing water closets. No type of water closet shall be maintained if broken or in any way defective and all such water closets may be condemned by the inspector with the approval of the health officer. When any prohibited water closets are removed from the floor they shall not be reset. (*As amended Dec.* 24, 1906.)

WATER SUPPLY FOR CLOSETS—Every water closet shall be provided with a separate flushing tank of at least three gallons capacity. The tank shall be supplied properly with water, and the flush pipe to the water closet shall be at least one and one quarter inches in diameter. Where the city pressure is not sufficient to supply the closet tank, pumps shall be provided. The valves of flushing tanks shall be so fitted and adjusted as to prevent waste of water.

VENTILATING PIPES FOR CLOSETS—A ventilating pipe shall connect to the soil pipe at its highest point and extend above the roof. It shall be of the same material as allowed for soil pipes and shall be increased at least one size before passing through the roof. The joint at the roof shall be made water tight by the use of a proper sheet copper, galvanized iron or lead roof plate. Where water closets are located in single houses, the ventilating pipe from one soil pipe line at least shall be four inches in diameter. The ventilating pipe from other soil pipe lines may be two inches in diameter but its length shall conform to these rules. In double houses where water closets discharge into a double "Y" branch in the soil pipe, one ventilating pipe of at least four inches diameter shall be sufficient. Where the water closets require two separate lines of soil pipe, each house will be considered a single house and the ventilating pipes shall be regulated by these rules. In semi-detached houses where two water closets discharge into a double "Y" branch in the soil pipe, one soil pipe stack in which the ventilating pipe is at least four inches in diameter, shall be allowed as in double houses, but where each water closet requires a separate line of soil pipe, each house will be considered a single house and the ventilating pipe shall be regulated b ythese rules. In office and commercial buildings a ventilating pipe of at least four inches diameter shall extend from each vertical line of soil pipe. For one or two closets a two inch ventilating pipe or back vent may be used provided said water closets are not more than fifty feet from a vertical soil pipe stack that extends in undiminished size through the roof. For more than two water closets the modified yoke vent, as hereinbefore provided, may be used.

WATER CLOSET ROOMS—A water closet shall not be located or maintained in a sleeping room or pantry, or in any room in which provisions are stored, nor in any room that is not well lighted and in direct communication with the outer air, except that such closets may be located in prison cells. Light and ventilation shall be furnished by a window of at least three square feet area, opening to the outer air; or light may be furnished from another room by means of a tight window of at least three square feet area and the ventilation furnished by means of a ventilating stack or pipe of at least twenty-eight square inches area, cross section, connected to a chimney flue above the highest opening or extended through the roof and properly capped. Water closet rooms shall be partitioned off tightly from any rooms used for human occupancy. Where there are not more than three water closets in one closet room, light and ventilation may be furnished as provided herein, except that at least twenty-eight square inches area, cross section, shall be allowed in the ventilating stack for each closet. Where there are more than three water closets in a closet room, light and ventilation shall be furnished by a window or windows, of at least one square foot area, for each water closet opening to the outer air or into a ventilating shaft of at least nine square feet area, cross section; or light may be furnished from another room from a tight window of at least one square foot area for each water closet and ventilation shaft in which at least twenty-eight square inches area, cross section, are allowed for each water closet. (*As amended Dec. 24*, 1906).

CHANGING STYLE OF WATER CLOSETS—Where the soil pipe is not extended above the roof or where there is a sheet metal ventilating pipe and the style of the water closet is changed, a ventilating pipe shall be run of the size and material herein provided. Where it is not practicable to run as large a ventilating pipe as specified, the inspector, with the approval of the health officer, may allow a smaller size to be used. This provision shall not apply to water closets located in the cellar or basement. (*As amended Dec.* 24, 1906).

§ 6. *Tests and inspections*—Plumbing and drainage work before being covered shall be tested and inspected by the inspector or his assistants, as follows:

New house laterals, or any alteration, repair or extension thereof which shall include more than ten feet, shall be inspected. If the house lateral is less than three feet from the walls of any building used for human occupancy, it shall be tested and inspected. House laterals may be inspected by an inspector from the department of public works, but such inspections shall be reported to the inspector of plumbing in writing. The house drain shall be tested with the water test in the presence of the inspector, and all alterations, repairs or extensions thereof which shall include more than ten feet shall be inspected. If a barn or any part of a barn be used for human habitation tests and inspections shall be regulated as for an ordinary dwelling. If a barn is not so used however, the drain shall be inspected but need not be tested. Conductor pipes within the walls of buildings, or conductor branches on the outside system, where such branches are less than three feet from the wall of the building, shall be tested by the water test in the presence of the inspector. Soil pipes, and all work known as "rough" work, shall be tested with the water test in the presence of the inspector. Extensions to soil pipes where water closets are added, shall be inspected. When a plumbing or drainage system is completed it shall be inspected. When the location or style of any fixture is changed, it shall be inspected. The fresh air inlet will be inspected when the final inspection is made. All work done under orders of the bureau of health shall be inspected. The water test shall be applied by closing all low openings in the piping and completely filling the same with water. The smoke test shall be allowed only when water is not available or when there is danger of freezing. Defective work or material shall be replaced within three days and the test again applied, if so ordered by the inspector.

The inspector shall be notified by the registered plumber when inspection is desired upon blanks furnished by the bureau. Applpication for final inspection shall be made by the registered plumber within ten days after the completion of the work. Telephone orders for the above inspections shall be received only after the written application has been deposited with the inspector. The inspector or his assistants shall make the above inspections within twenty-four hours after the time specified in the application, except in the case of final inspections which shall be made as soon as practicable after the receipt of the application. If any plumbing or drainage system, or portion thereof, be covered before being regularly inspected, the same shall be uncovered upon the direction of the inspector. In case the inspector, in responding to an application for inspection, shall be delayed more than fifteen minutes, or if it be necessary for said inspector to make a second trip, the registered plumber in charge of the work shall be required to pay to the city of Rochester a fine of fifty cents for the first extra trip and one dollar for each additional trip unless the cause of such delay shall have been unavoidable. After the final inspection has been made on any plumbing or drainage system entirely constructed under these rules, a certificate may be furnished on request by the bureau of health to the owner through the master plumber who had charge of the work. Plumbers must complete all plumbing jobs before applying for the final inspection. No plumber or other person shall leave open sewers or defective joints that will allow the escape of sewage or sewer air into any building.

Complaints of defects existing in any plumbing or drainage system, or part thereof, shall be investigated by the inspector or his assistants. Said inspector shall report the defects to the health officer with a recommendation of such alterations as will bring the system into reasonable conformity with these rules.

In case of dispute between a master plumber and the inspector as to the interpretation of any of the provisions of the Plumbing Code the inspector shall report the facts to the board for decision, which shall be final. (*As amended Dec.* 24, 1906).

ARTICLE III

PENALTIES AND REPEALS

§ 7. *Penalties*—Any person violating the provisions of these rules shall be guilty of a misdemeanor and be liable to a fine not exceeding one hundred and fifty dollars or to imprisonment not exceeding one hundred and fifty days or to pay to the city of Rochester a penalty not exceeding five hundred dollars, or to both fine and imprisonment; and on conviction, if a master plumber, in addition to the penalties herein prescribed shall forfeit any certificate of competency or registration which he may hold.

§ 8. *Repeals*—All rules and parts of rules of the examining board of plumbers inconsistent herewith are hereby repealed, and the rules of the board passed December 16, 1902, and all amendments thereto, are hereby specifically repealed.

§ 9. *When in effect*—These rules shall take effect immediately.

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